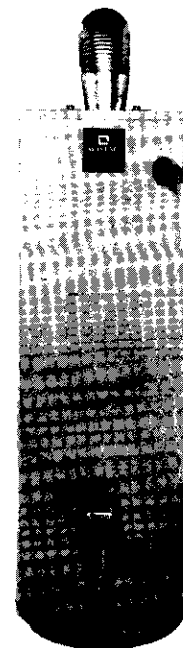




DIRECT VENT GAS WATER HEATER USER'S GUIDE



For Your Safety

AN ODORANT IS ADDED TO THE GAS USED BY THIS
WATER HEATER

WARNING: If the information in these instructions are not followed exactly, a fire or explosion may result, causing property damage, personal injury or death.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- WHAT TO DO IF YOU SMELL GAS
 - Do not try to light any appliance.
 - Do not touch any electrical switch; do not use any phone in your building.
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
 - If you can not reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

▲ WARNING

Improper installation, adjustment, alteration, service or maintenance can cause DEATH, SERIOUS BODILY INJURY, OR PROPERTY DAMAGE. Refer to this manual for assistance or consult the local gas utility for further information.

▲ WARNING

Flammable vapors may be drawn by air currents from other areas of the structure to this appliance.

▲ WARNING

READ THE GENERAL SAFETY SECTION BEGINNING ON INSIDE COVER AND THEN THIS ENTIRE MANUAL BEFORE INSTALLING OR OPERATING THIS WATER HEATER.

Model Numbers

HJ640NBDS
HJ640PBDS
HJ650NBDS
HJ650PBDS

**FOR POTABLE WATER
HEATING ONLY**

**NOT SUITABLE FOR
SPACE HEATING**

**NOT FOR USE IN
MANUFACTURED
(MOBILE) HOMES**

Caution:
Read and Follow All
Safety Rules and
Operating Instructions
Before First Use of
This Product.

Save this Manual for Future Reference.

Safety Instructions

▲ WARNING

The water heater must be properly vented outdoors. Never operate the water heater unless it is vented to the outdoors and has adequate air supply to avoid risks of improper operation, explosion or asphyxiation.

▲ WARNING

Minimum clearances between the water heater and combustible and noncombustible construction are: 0 inches from sides, 0 inches from back, 4 inches from front of jacket to closet door and 3 inches from top of jacket to combustible and noncombustible ceiling. Minimum vent clearance: 0 inches. NOTE: provide 24 inches front clearance for servicing. (See Figure 1) Page 9.

▲ WARNING

Flood damage to a water heater may not be readily visible or immediately detectable. However, over a period of time a flooded water heater will create dangerous conditions which can cause DEATH, SERIOUS BODILY INJURY, OR PROPERTY DAMAGE. Contact the Maytag dealer from whom the appliance was purchased or call Maytag Customer Service at 1-800-788-8899 for an authorized servicer to replace a flooded water heater. Do not attempt to repair the unit! It must be replaced!

▲ WARNING

INSULATING JACKETS: When installing an external water heater insulation jacket on a gas water heater:

- a. DO NOT cover the temperature-pressure relief valve.
- b. DO NOT put insulation over any part of the top of the gas water heater.
- c. DO NOT put insulation over the gas control valve or gas control valve/burner cover, or any access areas to the burner.
- d. DO NOT let insulation around the gas water heater to get within 8 inches of the floor to allow access to the burner assembly.
- e. DO NOT cover or remove operating instructions, and safety related warning labels and materials affixed to the water heater.

Failure to heed this will result in the possibility of a fire or explosion.

▲ WARNING

HYDROGEN GAS: Hydrogen gas can be produced in a hot water system that has not been used for a long period of time (generally two weeks or more). Hydrogen gas is extremely flammable and explosive. To prevent the possibility of injury under these conditions, we recommend the hot water faucet be opened for several minutes at the kitchen sink before any electrical appliances which are connected to the hot water system are used (such as a dishwasher or washing machine). If hydrogen gas is present, there will probably be an unusual sound similar to air escaping through the pipe as the hot water faucet is opened. There must be no smoking or open flame near the faucet at the time it is open.

▲ CAUTION

WATER HEATERS EVENTUALLY LEAK: Installation of the water heater must be accomplished in such a manner that if the tank or any connections should leak, the flow of water will not cause damage to the structure. For this reason, it is not advisable to install the water heater in an attic or upper floor. When such locations cannot be avoided, a suitable drain pan should be installed under the water heater. Such a drain pan must have a minimum length and width of at least 2 inches greater than the water heater dimensions and must be piped to an adequate drain. Drain pan depth must allow for access to the outer doors for lighting the pilot and servicing the burner. Under no circumstances is the manufacturer or Maytag to be held liable for any water damage in connection with this water heater.

Table of Contents

Safety Instructions	2-4
Table of Contents	5
Customer Information	6
Product Specifications	6
Accessories and Tools Needed	7
Accessories	7
Tools	7
Instructions for Installation	8-31
Removing the Old Water Heater	8
Typical Installation	9
Locating the New Water Heater	10
Combustion Air and Ventilation	11, 12
Venting Clearances	11, 12
Optional Wire Grill	12
Flue Extensions	12, 13
Vertical (Extension Kit) Height	12, 13
Horizontal (Extension Kit)	13
All Installations	14
Standard Vent Kit Installation	14-17
Optional Vertical Kit Installation	17-21
Optional Horizontal Kit Installation	21-25
Optional Vertical and Horizontal Kit Installation	25-29
Water Piping	30
Temperature-Pressure Relief Valve	31
Filling the Water Heater	32
Gas Piping	32, 33
Installation Checklist	34
Instructions for Operation	35-37
Lighting	35, 36
Temperature Regulation	37
Service and Maintenance	38-40
Venting System Inspection	38
Burner Inspection	38
Burner Cleaning	38
L.P. Gas Control Valve and Burner Assembly Replacement Information	39
Draining	39
Anode Rod Inspection	39
Temperature-Pressure Relief Valve Operation	40
Drain Valve Washer Replacement	40
Housekeeping	40
Service	40
Troubleshooting	41-44
Start Up Conditions	41
Condensation	41
Smoke/Odor	41
Thermal Expansion	41
Strange Sounds	41
Operational Conditions	42, 43
Smelly Water	42
"Air" In Hot Water Faucets	42
High Temperature Shut Off System	42
Not Enough or No Hot Water	42
Water Is Too Hot	43
Leakage Checkpoints	44
Repair Parts List	46-50
Warranty	52

Customer Information

Thank You for purchasing a Maytag water heater. Properly installed and maintained, it should give you years of trouble free service. It is strongly suggested that this new water heater be professionally installed, contact Maytag Customer Service (1-800-788-8899) for recommended installers.

Abbreviations Found In This Instruction Manual

CSA - Canadian Standards Association
ANSI - American National Standards Institute
NFPA - National Fire Protection Association

▲ WARNING

This gas-fired water heater is design certified by CSA INTERNATIONAL under American National Standard/CSA Standard for Gas Water Heaters ANSI Z21.10.1 • CSA 4.1 (current edition). The installation must conform with this manual, Local Codes and with the current edition of the National Fuel Gas Code, ANSI Z223.1. This publication is available from your local government or public library, gas company, or by writing NFPA, Batterymarch Park, Quincy, MA 02269.

- Read the "Safety Instructions" section, pages 2, 3 and 4 of this manual first and then the entire manual carefully. If you don't follow the safety rules, the water heater will not operate properly. It could cause **DEATH, SERIOUS BODILY INJURY AND/OR PROPERTY DAMAGE.**
- This manual contains instructions for the installation, operation, and maintenance of the gas-fired water heater. It also contains warnings that you must read and be aware of through out the manual. All warnings and all instructions are essential to the proper operation of the water heater and your safety. Since we

cannot put everything on the first few pages, **READ THE ENTIRE MANUAL BEFORE ATTEMPTING TO INSTALL OR OPERATE THE WATER HEATER.**

- The installation must conform with the instructions in this manual; gas company rules; and Local Codes, or in the absence of Local Codes, with the current edition of the National Fuel Gas code, ANSI Z223.1, also referred to as NFPA 54. This publication is available from your local government or public library or gas company or by writing NFPA, Batterymarch Park, Quincy, MA 02269.
- After reading this manual you have any questions or do not understand any portion of the instructions, call Maytag Customer Service at 1-800-788-8899 for an authorized servicer.
- Carefully plan the place where you are going to put the water heater. Correct combustion, vent action, and vent pipe installation are very important in preventing death from possible carbon monoxide poisoning and fires. Examine the location to ensure the water heater complies with the "Locating the New Water Heater" section in this manual.
- For California installation this water heater must be braced, anchored, or strapped to avoid falling or moving during an earthquake. See instructions for correct installation procedures. Instructions may be obtained from your local dealer, wholesaler, public utilities or California Office of the State Architect, 400 P Street, Sacramento, CA 95814.
- Massachusetts Code requires this water heater to be installed in accordance with Massachusetts 248-CMR 2.00: State Plumbing Code and 248-CMR 5.00.
- Complies with SCAQMD rule #1121 and districts having equivalent NOx requirements.

Product Specifications

*Model	HJ640NBDS	HJ640PBDS	HJ650NBDS	HJ650PBDS
Tank Capacity In Gallons	40	40	50	50
Type of Gas	Natural	Propane	Natural	Propane
B.T.U. Rate	40,000	40,000	48,000	44,000
Recovery Rate In Gals Per Hour @ 90°F Rise	41	41	49	45
Vent Inlet (Outlet) Size	6" (3")	6" (3")	6" (3")	6" (3")
Diameter	21"	21"	21"	21"
Height To Top of Water Heater	48¾"	48¾"	61"	61"

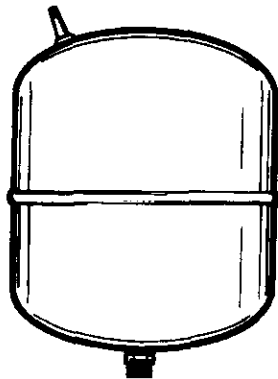
AVAILABLE OPTIONS:
Suffix "W" – Heat Traps
* Suffix "D" – High Altitude

* High altitude models have a B.T.U./Recovery Rate 10% less than shown.

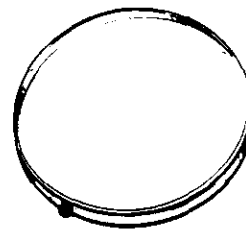
Accessories and Tools Needed

Accessories

To simplify the installation Maytag has available the installation parts shown below. You may or may not need all of these accessories depending on your type of installation. Call Maytag Customer Service at 1-800-788-8899 for an authorized installer.



EXPANSION TANKS FOR THERMAL EXPANSION CONDITIONS AVAILABLE IN 2 GALLON (PART NUMBER 66001013) AND 5 GALLON (PART NUMBER 66001014) CAPACITY



DRAIN PANS AVAILABLE IN 22" DIAMETER (PART NUMBER 66001011) FOR WATER HEATERS HAVING A DIAMETER 20" OR LESS, 24" DIAMETER (PART NUMBER 66001105) FOR WATER HEATERS HAVING A DIAMETER 22" OR LESS AND 28" DIAMETER (PART NUMBER 66001012) FOR WATER HEATERS HAVING A DIAMETER 26" OR LESS

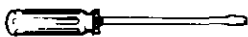
Tools

You may or may not need all of these tools, depending on your type of installation. These tools can be purchased at your local hardware store.

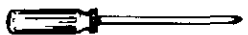
- Pipe Wrenches (2) 14"
- Screwdriver
- Tin Snips
- 6 Foot Tape of Folding Rule
- Garden Hose
- Drill
- Pipe dope or Teflon Tape



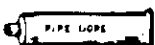
ROLL OF TEFLON TAPE (USE ONLY ON WATER CONNECTIONS)



SLOT-HEAD SCREWDRIVER



PHILLIPS SCREWDRIVER



PIPE DOPE (SQUEEZE TUBE) (USE FOR WATER AND GAS CONNECTIONS)



GARDEN HOSE



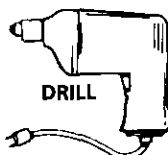
6 FOOT TAPE



PIPE WRENCH



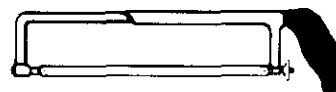
TIN SNIPS



DRILL

ADDITIONAL TOOLS NEEDED WHEN SWEAT SOLDERING

- Tubing Cutters or Hacksaw
- Propane Torch
- Soft Solder
- Solder Flux
- Emery Cloth
- Wire Brushes



HACKSAW



3/4" WIRE BRUSH



1/2" WIRE BRUSH



ROLL OF LEAD FREE SOFT SOLDER



ROLL OF EMERY CLOTH



SOLDER FLUX



PROPANE TORCH



TUBING CUTTER

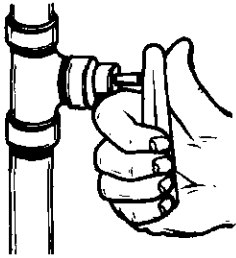
Instructions for Installation

Removing the Old Water Heater

- ① Turn "OFF" the gas supply to the water heater.

▲ WARNING

If the main gas line shutoff serving all gas appliances is used, also shut "OFF" the gas at each appliance. Leave all gas appliances shut "OFF" until the water heater installation is complete.

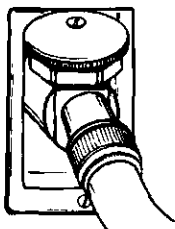


- ② Turn "OFF" the water to the water heater. Some installations require that the water be turned off to the entire house.



- ③ Check again to make sure the gas supply is "OFF" to the water heater. Then disconnect the gas supply connection from the gas control valve.

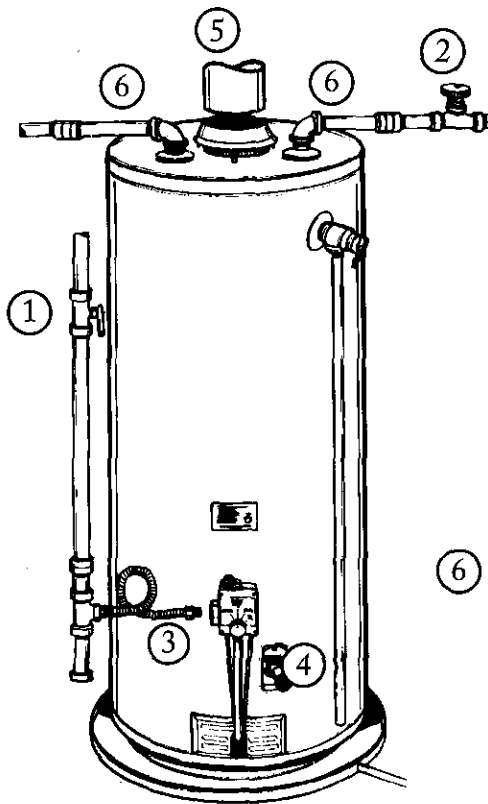
- ④ Attach a hose to the water heater drain valve and put the other end in a floor drain or outdoors. Open the water heater drain valve. Open a nearby hot water faucet which will relieve pressure in the water heater and speed draining.



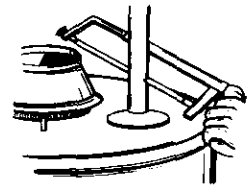
▲ WARNING

The water passing out of the drain valve may be extremely hot. To avoid being scalded, make sure all connections are tight and that the water flow is directed away from any person.

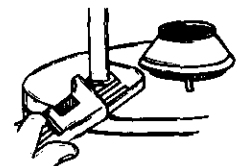
- ⑤ Disconnect the vent pipe from the draft hood, if provided, where they connect to the water heater. In most installations the vent pipe(s) can be lifted off after any screw or other attached devices are removed. Dispose of the draft hood, if provided. The new water heater has a vent kit which must be used for proper operation.



- ⑥ a. If you have copper piping to the water heater, the two copper water pipes can be cut with a hacksaw approximately four inches away from where they connect to the water heater. This will avoid cutting off the pipes too short. Additional cuts can be made later if necessary. Disconnect the temperature-pressure relief valve drain line. When the water heater is drained, disconnect the hose from the drain valve. Close the drain valve. The water heater is now completely disconnected and ready to be removed.



- ⑥ b. If you have galvanized pipe to the water heater, loosen the two galvanized pipes with a pipe wrench at the union in each line. Also disconnect the piping remaining to the water heater. These pieces should be saved since they may be needed when reconnecting the new water heater. Disconnect the temperature-pressure relief valve drain line. When the water heater is drained, disconnect the hose from the drain valve. Close the drain valve. The water heater is now completely disconnected and ready to be removed.



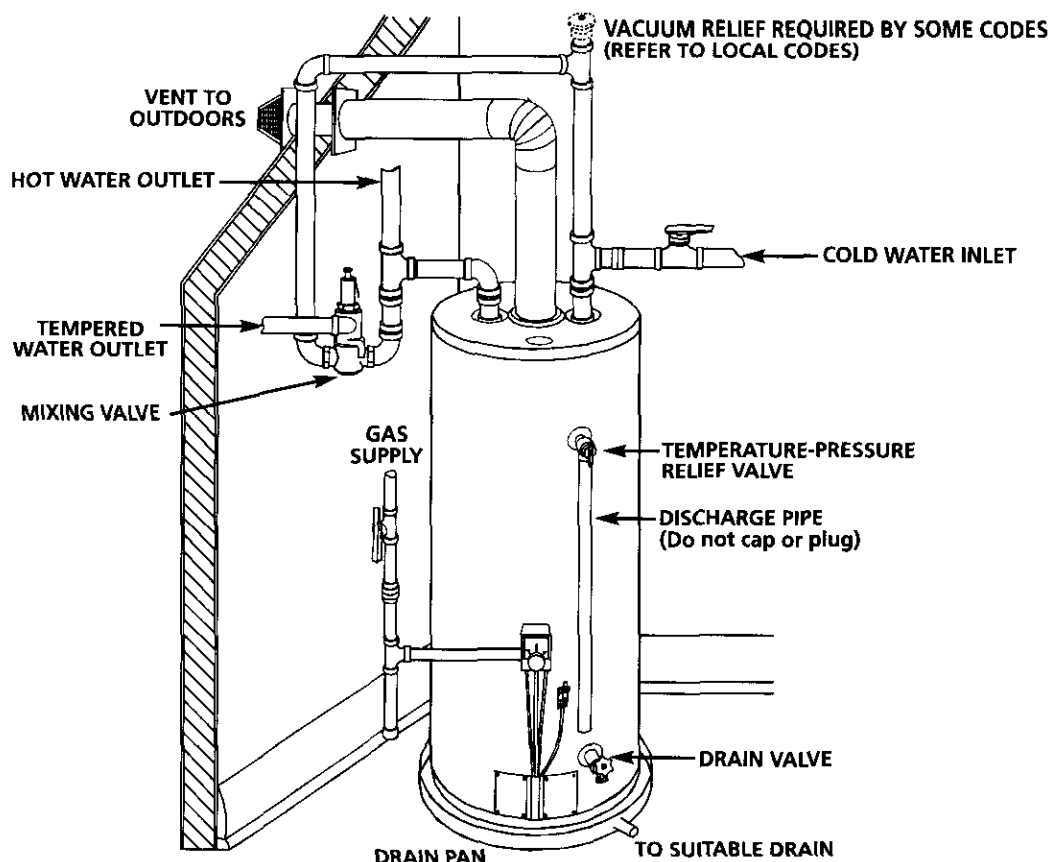
▲ CAUTION

Mineral buildup or sediment may have accumulated in the old water heater. This causes the water heater to be much heavier than normal and this residue, if spilled out, could cause staining.

Instructions for Installation (cont'd)

Typical Installation

CHECK ALL CONNECTIONS FOR LEAKS. CONSULT THE LOCAL UTILITY COMPANY TO EXAMINE INSTALLATION FOR PRO-PRIETY AND SAFETY.



This appliance has been design certified as complying with American National Standard/CSA Standard for water heaters and is considered suitable for:

Water (Potable) Heating: All models are "considered suitable for water (potable) heating."

▲ WARNING

HOTTER WATER CAN SCALD: Water heaters are intended to produce hot water. Water heated to a temperature which will satisfy clothes washing, dish washing, and other sanitizing needs can scald and permanently injure you upon contact. Some people are more likely to be permanently injured by hot water than others. These include the elderly, children, the infirm, or physically/mentally handicapped. If anyone using hot water in your home fits into one of these groups or if there is a local code or state law requiring a certain temperature water at the hot water tap, then you must take special precautions. In addition to using the lowest possible temperature setting that satisfies your hot water needs, a means such as a mixing valve, should be used at the hot water taps used by these people or at the water heater. Mixing valves are available at plumbing supply or hardware stores. Follow manufacturers instructions for installation of the valves. Before changing the factory setting on the thermostat, read the "Temperature Regulation" section in this manual.

▲ WARNING

This water heater shall not be connected to any heating systems or component(s) previously used with a non-potable water heating appliance.

▲ WARNING

Toxic chemicals such as used for treatment of boilers or non-potable water heating appliances shall never be introduced into a potable water space heating system.

NOTE: To protect against untimely corrosion of hot and cold water fittings, it is strongly recommended that di-electric unions or couplings be installed on this water heater when connected to copper pipe.

Instructions for Installation (cont'd)

Locating the New Water Heater

You should carefully choose an indoor location for the new water heater, because the placement is a very important consideration for the safety of the occupants in the building and for the most economical use of the appliance. **This water heater is not for use in manufactured (mobile) homes or outdoor installation.**

Whether replacing an old water heater or putting the water heater in a new location, the following critical points must be observed.

The location selected should be indoors as close as practical to the outside wall to which the water heater vent is going to be installed through, and as centralized with the water piping system as possible. The water heater, as all water heaters, will eventually leak. Do not install without adequate drainage provisions where water flow will cause damage.

▲ CAUTION

WATER HEATERS EVENTUALLY LEAK: Installation of the water heater must be accomplished in such a manner that if the tank or any connections should leak, the flow of water will not cause damage to the structure. For this reason, it is not advisable to install the water heater in an attic or upper floor. When such locations cannot be avoided, a suitable drain pan should be installed under the water heater. Such a drain pan must have a minimum length and width of at least 2 inches greater than the water heater dimensions and must be piped to an adequate drain. Drain pan depth must allow for access to the outer doors for lighting the pilot and servicing the burner. Under no circumstances is the manufacturer or Maytag to be held liable for any water damage in connection with this water heater.

▲ WARNING

INSTALLATIONS IN AREAS WHERE FLAMMABLE LIQUIDS (VAPORS) ARE LIKELY TO BE PRESENT OR STORED (GARAGES, STORAGE, AND UTILITY AREAS, ETC): Flammable liquids (such as gasoline, solvents, propane (LP) or butane, etc.), all of which emit flammable vapors, may be improperly stored or used in such areas. The gas water heater pilot light or main burner can ignite such vapors. The resulting flashback and fire can cause death or serious burns to anyone in the area, as well as property damage.

If installation in such areas is your only option, then the installation must be accomplished in a way that the pilot flame and main burner flame are elevated from the floor at least 18 inches. While this may reduce the chances of flammable vapors from a floor spill being ignited, gasoline and other flammable substances should never be stored or used in the same room or area containing a gas water heater or other open flame or spark producing appliance.

NOTE: Flammable vapors may be drawn by air currents from other areas of the structure to the appliance.

- The location selection must provide adequate clearances for servicing and proper operation of the water heater.

▲ WARNING

Propellants of aerosol sprays and volatile compounds, (cleaners, chlorine based chemicals, refrigerants, etc.) in addition to being highly flammable in many cases, will also change to corrosive hydrochloric acid when exposed to the combustion products of the water heater. The results can be hazardous, and also cause product failure.

▲ WARNING

This water heater must not be installed directly on carpeting. Carpeting must be protected by a metal or wood panel beneath the appliance extending beyond the full width and depth of the appliance by at least 3 inches (76.2mm) in any direction, or if the appliance is installed in an alcove or closet, the entire floor must be covered by the panel. Failure to heed this warning may result in a fire hazard.

▲ WARNING

Minimum clearances between the water heater and combustible and noncombustible construction are: 0 inches from sides, 0 inches from back, 4 inches from front of jacket to closet door and 3 inches from top of jacket to combustible and noncombustible ceiling. Minimum vent clearance: 0 inches. **NOTE:** provide 24 inches front clearance for servicing. (See Figure 1).

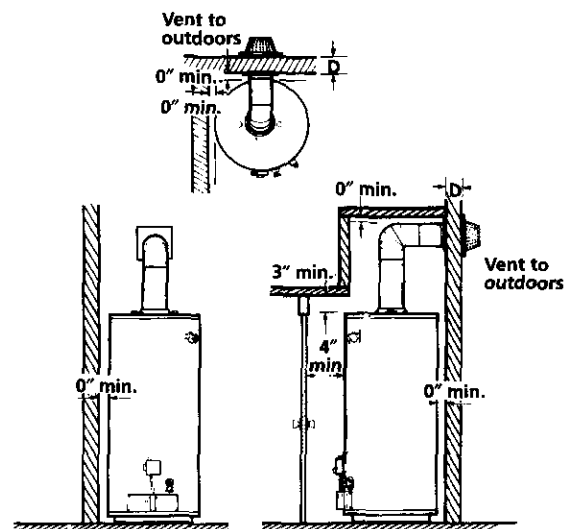


Figure 1

Instructions for Installation (cont'd)

Combustion Air and Ventilation

When determining the installation location for a direct vent water heater, snow accumulation and drifting should be considered in areas where applicable.

VENTING CLEARANCES

- 18" minimum in all directions from any obstruction that may interfere.
- 18" minimum from the ground and 12" from ceiling overhangs. Figure 2.
- The direct vent terminal shall terminate at least 3 feet above any forced air inlet located within 10 feet. Figure 3.
- 9" minimum horizontally from or above any door, window or gravity air inlet into the building.
- 12" minimum below any door, window or gravity air inlet into the building.
- 18" minimum from other gravity or natural appliance outlet vents when directly above or 135° to either side of center line. Figure 4.
- 36" minimum from any outlet vents when directly below or 45° to either side of center line. Figure 5, page 12.
- 36" minimum in all directions from any other forced air appliance outlet vent. Figure 5, page 12.
- The location selection must provide clearances for servicing and proper operation of the water heater. Figure 6, page 12.
- Vent termination must not be within 4 feet of any items such as gas meters, gas valves or other gas regulating equipment.

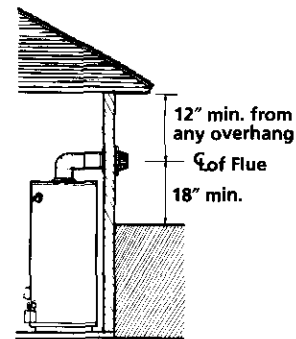


Figure 2

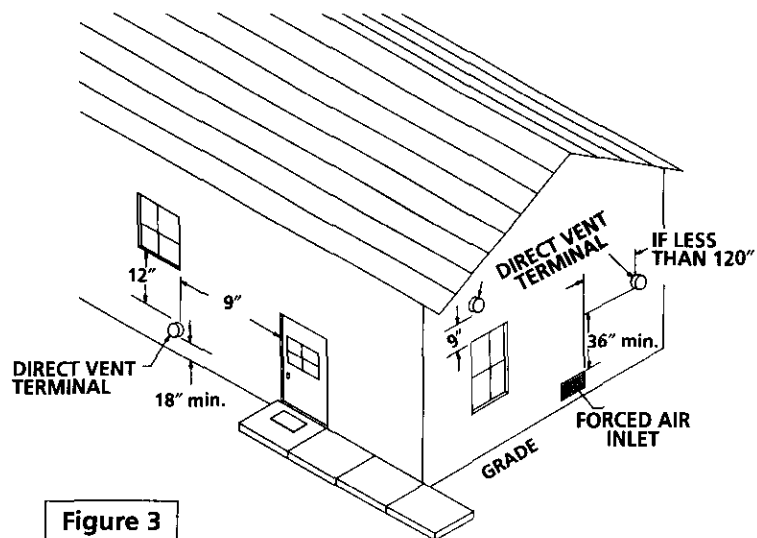


Figure 3

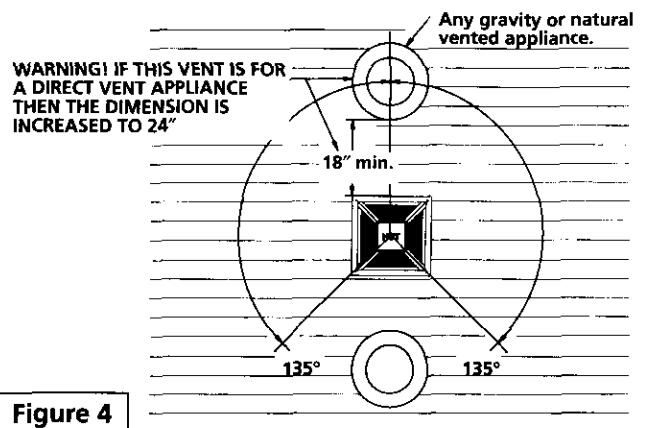


Figure 4

▲ WARNING

Vent termination must not be within 4 feet of any items such as gas meters, gas valves or other gas regulating equipment.

▲ WARNING

Failure to have required clearances between vent piping and combustible material will result in a fire hazard.

Instructions for Installation (cont'd)

Combustion Air and Ventilation (cont'd)

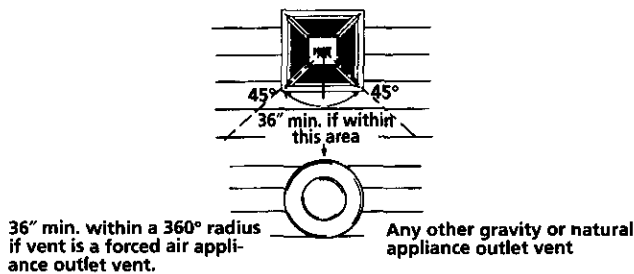


Figure 5

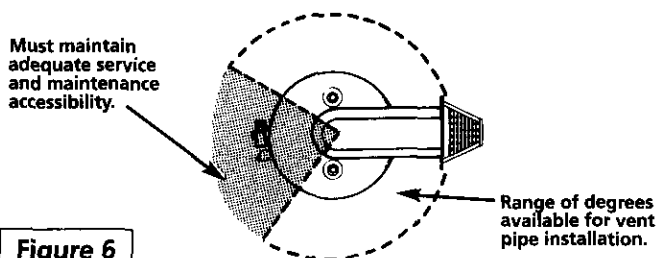


Figure 6

Optional Wire Grill

When the water heater vent cap is low enough to be touched accidentally, or is accessible to small children, installation of a protective vent cover is recommended. Some local codes may require a vent cap cover. Figure 7 shows the optional wire vent cap protector available from the water heater manufacturer.

A wire mesh chain link fence (as shown in Figure 7) may be used instead of the factory cover. Care should be taken to maintain adequate ventilation around the vent cap. If a chain link fence is installed, it must not be used as a storage area for items that may block proper ventilation.

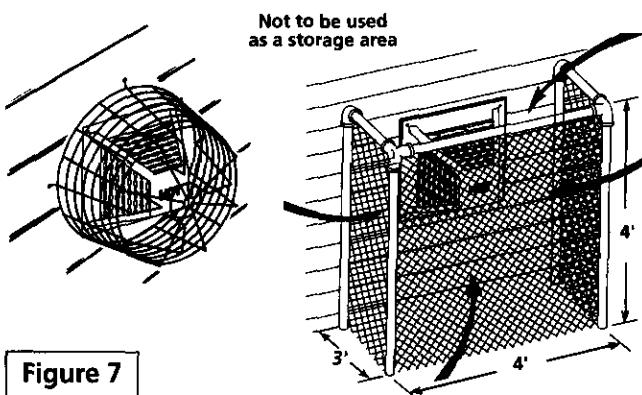


Figure 7

Flue Extensions

There are three optional extension kits available. Any combination of the three kits can be chosen; however, only one kit can be used vertically and/or horizontally.

(See Figures 8 & 9.)

Unless otherwise specified at the time of ordering, a standard extension kit (66001422) is individually packaged and shipped within the water heater carton.

POSSIBLE EXTENSION COMBINATIONS

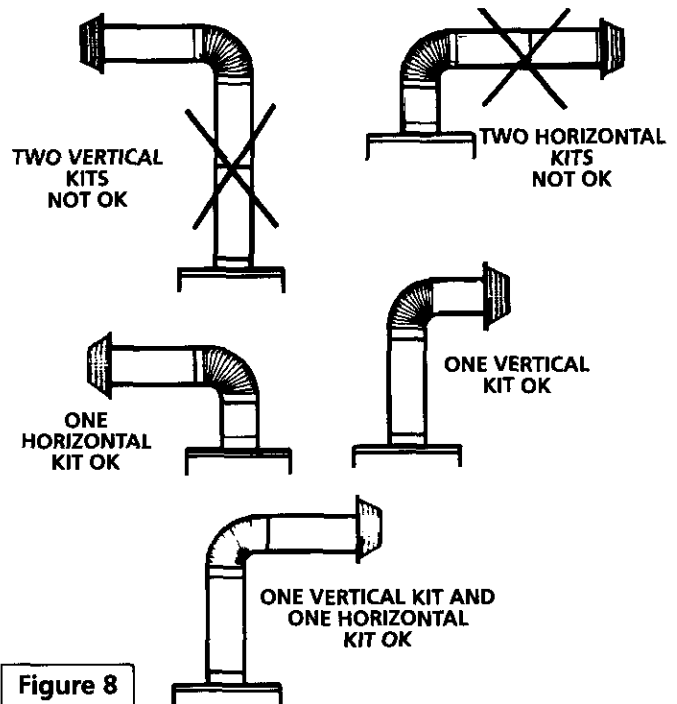


Figure 8

⚠ WARNING

At no time can more than one Vertical and/or one Horizontal Vent Kit be used.

VERTICAL (EXTENSION KIT) HEIGHT

It is simple to determine which kit is needed for vertical height. Take the total height (to the top of the flue) required and comparing that to "F dim." in the chart #1, it can be determined which kit needs to be used vertically.

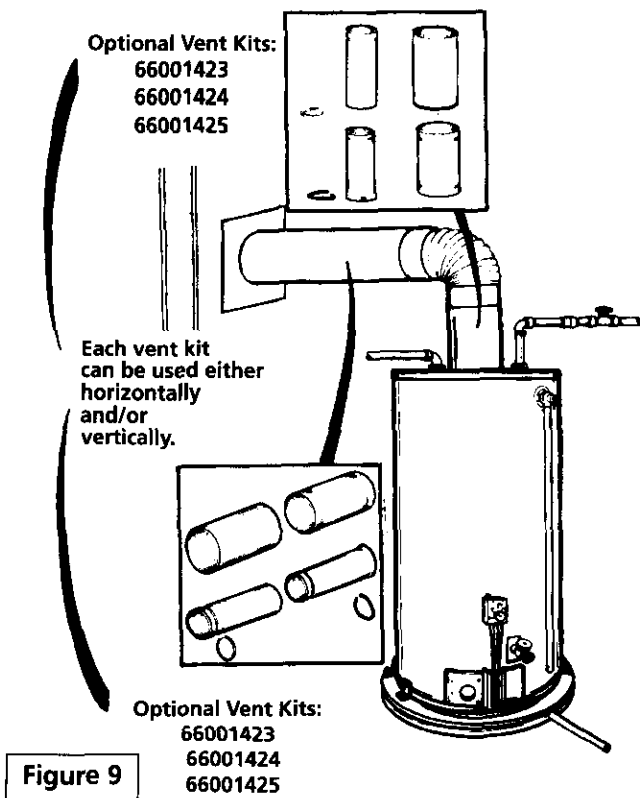
⚠ WARNING

Failure to have required clearances between vent piping and combustible material will result in a fire hazard.

⚠ WARNING

Obstructions and deteriorated vent systems may present serious health risk or asphyxiation.

Instructions for Installation (cont'd)



NOTE: Only one vent kit can be used horizontally and/or vertically.

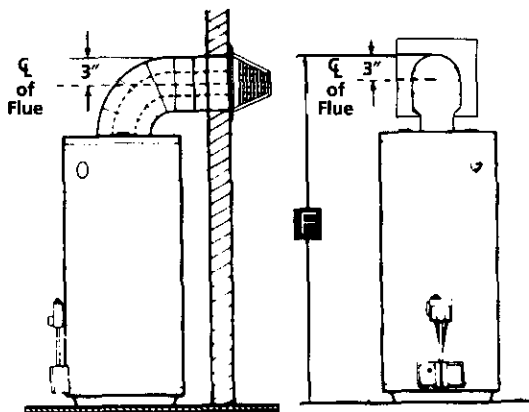


CHART #1

*GAL. CAP.	BTU's in 1000's NAT.	F DIMENSION							
		66001422	66001423		66001424		66001425		
		STD.	MIN	MAX	MIN	MAX	MIN	MAX	
40	40/40	63 ³ / ₄	72	77	77	88	88	110	
50	48/44	76	84 ¹ / ₄	89 ³ / ₄	89 ³ / ₄	100 ³ / ₄	100 ³ / ₄	122 ³ / ₄	

*See model and rating plate attached to the water heater for specific model number and other detailed information.

HORIZONTAL (EXTENSION KIT)

To determine the horizontal length and extension kit needed, simply plug the dimensions "D" and "G" into the equation below. The answer "E" should then be located in chart #2. The size range in which "E" dimension falls indicates the kit that should be used horizontally to obtain the desired length.

"D" = The wall thickness

"G" = The distance wanted between the edge of the water heater and the **inside** edge of the wall

"E" = The distance the extension kit must be able to extend

The Equation $D + G = E$

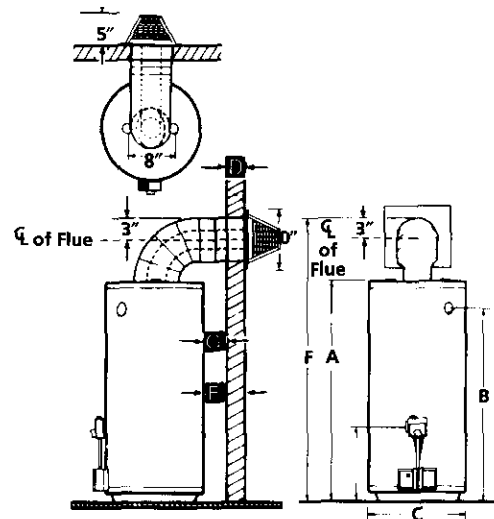


CHART #2

VENT KITS	E DIMENSION	
	40-50 Gal.	
	MIN	MAX
66001422-Std.	3 ¹ / ₂	10
66001423	10	15 ¹ / ₂
66001424	15 ¹ / ₂	26 ¹ / ₂
66001425	26 ¹ / ₂	48

*GAL. CAP.	*BTU'S in 1000's NAT	A	B	C
40	40/40	48 ³ / ₄	41 ³ / ₄	21
50	48/44	61	54	21

*See models and rating plate attached to the water heater for specific model number and other detailed information

▲ WARNING

Be sure vent pipe is properly connected to prevent escape of dangerous flue gases which could cause deadly asphyxiation.

▲ WARNING

Obstructions and deteriorated vent systems may present serious health risk or asphyxiation.

Instructions for Installation (cont'd)

All Installations

For ease of assembly the installation of the various kit combinations has been broken into individual sections. The two steps below are common to all installations. Once these have been performed, you need only to refer to the type installation that pertains to you.

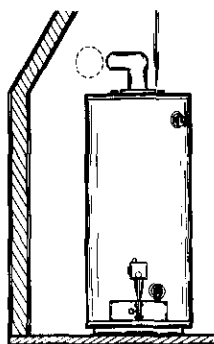
Installation Using Vent Kits:

1. Standard Vent Kit 66001422.....Page 14
2. Optional Vertical Vent Kit
with Standard Vent KitPage 17
3. Optional Horizontal Vent KitPage 21
4. Optional Horizontal
and Vertical Vent KitsPage 25

CUTTING THE OPENING THROUGH THE OUTSIDE WALL

After thoroughly reading the "Locating the New Water Heater" section of this manual and you have chosen a suitable water heater installation site, use the chart below to determine dimensions for the opening in the wall.

Cut a 6¹/₄" diameter hole completely through the outside wall.



WATER HEATER ATTITUDE

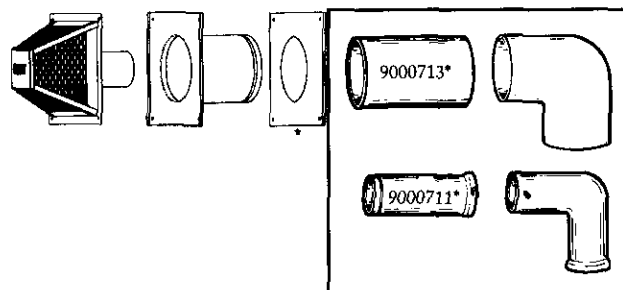
There is a certain amount of variance with regard to the direction the water heater faces.

Standing in front of the water heater (gas control facing you), set the 3" diameter elbow (slotted end) on the flue. This will give you a better understanding of the relation of the vent assembly to the opening in the wall and more importantly any possibility of interference of venting and water piping.

The direction of the water heater can now be made. Also consider the gas control valve to insure installation, lighting, and maintenance accessibility are retained.

Standard Vent Kit Installation #1

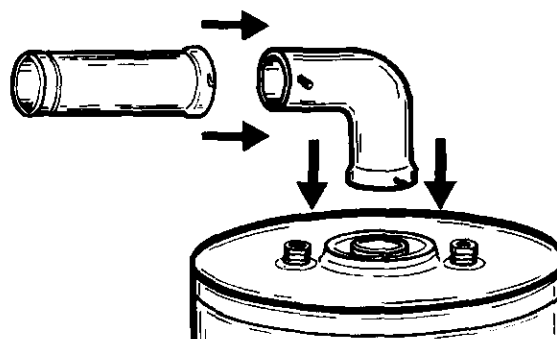
Standard Vent Kit 66001422



* Each part is stamped with a part number

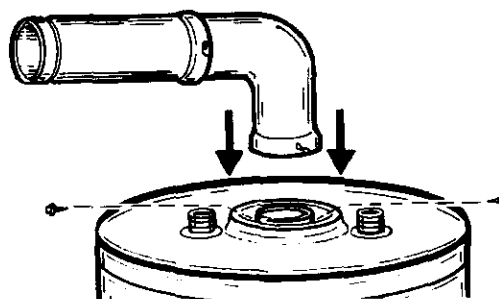
The opening through the wall should be cut at this time. If it hasn't been, refer back to that section.

1. Lock the elbow to the straight 3" flue pipe. Set this assembly in place on the end of the water heater's flue collar.



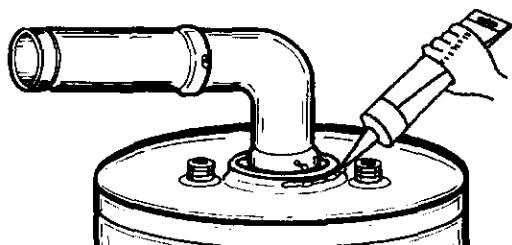
2. Mark the flue collar at the slots in the elbow. Using a #22 drill bit, drill holes into the flue collar at the two slots and secure the elbow to the flue collar using the screws provided.

NOTE: Make sure elbow is properly aligned to opening in the outside wall.

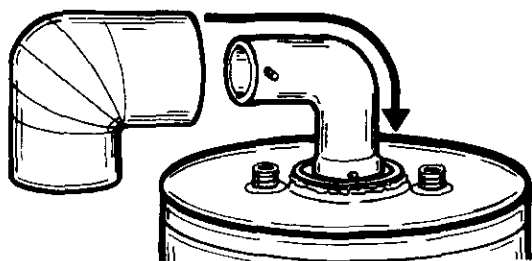


Instructions for Installation (cont'd)

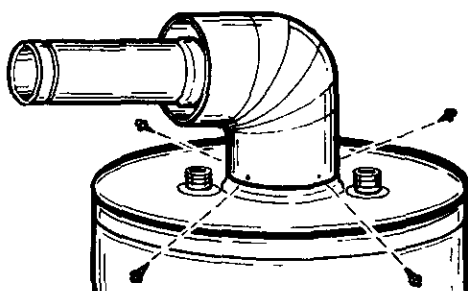
3. Using the tube of sealant supplied, run an ample amount around the oval flare of the jacket.



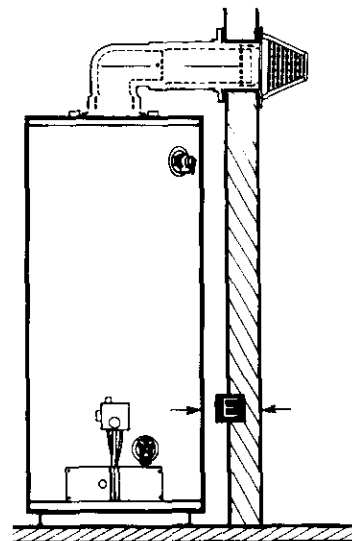
4. First remove the 3" horizontal extension from the elbow. Starting with the long end (with four securing holes), place the 6" diameter vent elbow over the 3" diameter elbow. Bend the round end "oval" to fit the flared oval end of the jacket top.



5. Making sure the 6" diameter elbow is centered around the 3" diameter flue, secure the 6" diameter vent pipe using four sheet metal screws at the connection of the jacket top.

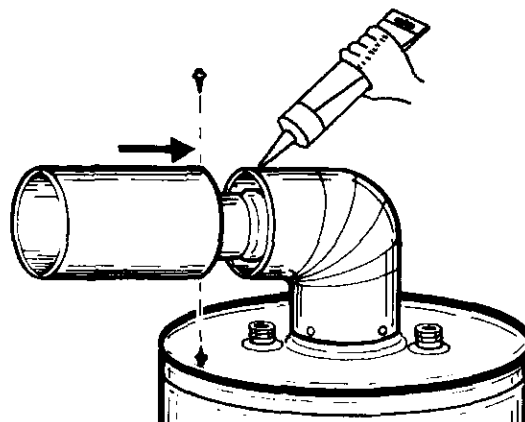


6. The standard vent kit includes a 6" diameter extension pipe which is used when "E" dimension is over 6 1/2".

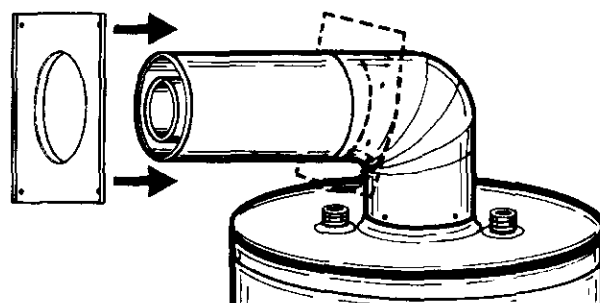


7. If "E" dimension is less than 6 1/2" move to next step.

If "E" dimension is over 6 1/2", assemble the 6" diameter extension pipe (crimped end) to the 6" diameter vent elbow and secure using two sheet metal screws. Using the tube of sealant supplied, run an ample amount around the joint to insure a good seal.



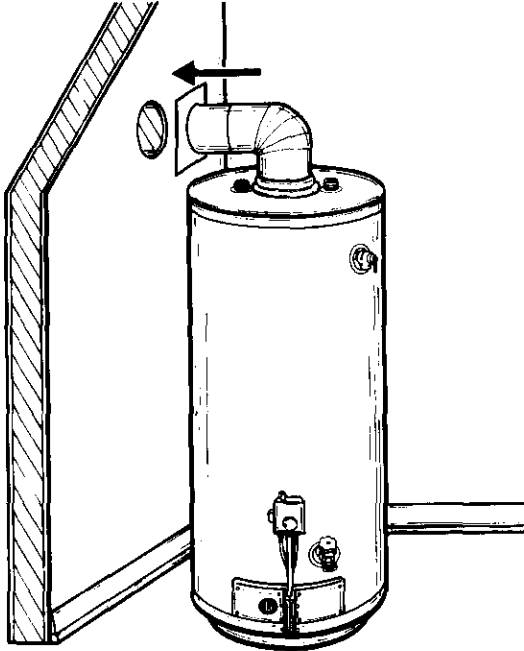
8. Slide the vent collar (to be installed later) over the 6" vent elbow.



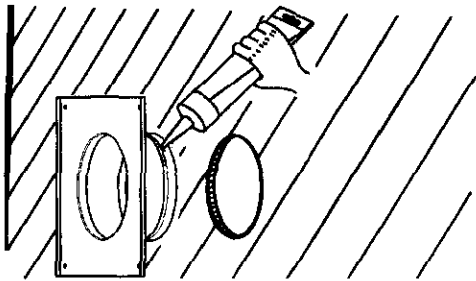
Instructions for Installation (cont'd)

Standard Vent Kit (cont'd)

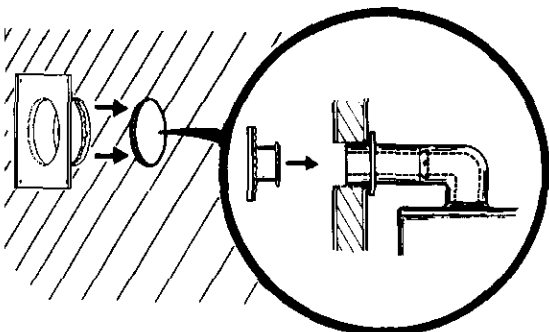
9. Place the water heater at the opening in the wall, at the predetermined clearance.



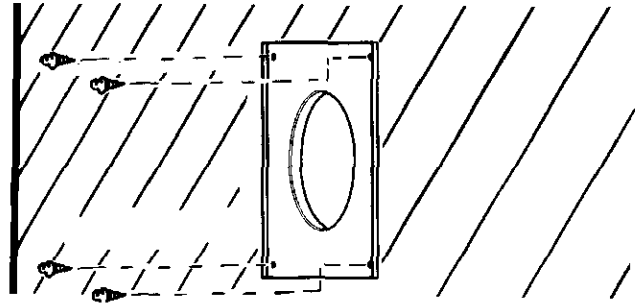
10. Move outdoors with all the remaining vent parts. Using the tube of sealant supplied, run an ample amount on the inside surface of the collar assembly that will contact the exterior wall and also fill the bead on the end of the 6" diameter vent collar.



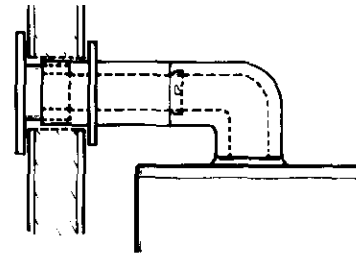
11. Install the vent collar assembly through the wall, connecting it to the extension and/or elbow (depending on which one was used).



12. We have supplied 4 wood screws to temporarily attach the collar to the exterior wall of the building. However, other types of screws may have to be substituted depending on the construction of the exterior wall.

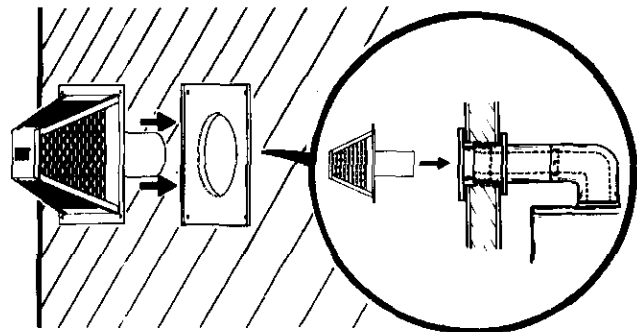


13. Insert the 3" diameter flue extension pipe into the vent collar assembly (flared & notched end first) and lock (turn clockwise to lock studs to slots) the flue extension pipe to the flue elbow.



14. Connect the vent cap by sliding its end over the 3" diameter extension pipe and O-ring.

NOTE: To facilitate ease of assembly of the vent cap to the 3" pipe, a soap solution can be applied to the O-ring gasket.



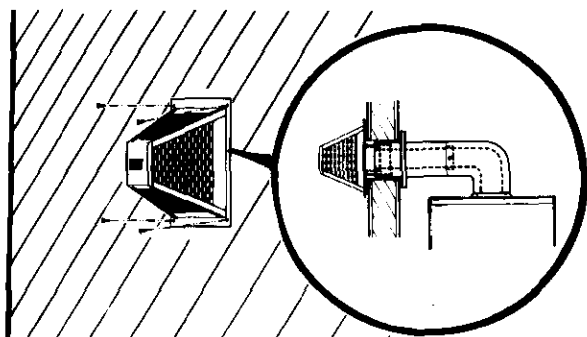
Instructions for Installation (cont'd)

15. The vent cap has 4 holes around the outer edge. Remove the 4 screws used to temporarily attach the collar to the exterior wall. Then secure the vent cap assembly with the vent collar assembly to the exterior wall using the same 4 screws.

NOTE: Screws are supplied; however, substitution may be necessary depending on the exterior wall material.

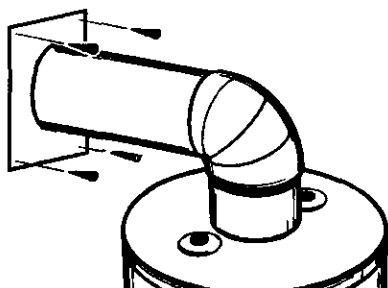
▲ CAUTION

To prevent unlocking the previously installed 3" diameter extension, the vent cap assembly must be rotated in a clockwise motion when the vent cap is installed.

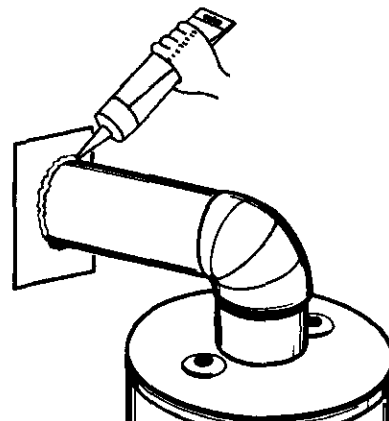


16. Go back indoors to attach inside collar to the inside wall. Place the collar against the wall. Secure to wall by using 4 long sheet metal screws.

NOTE: Screws are supplied; however, substitution may be necessary depending on the interior wall material.

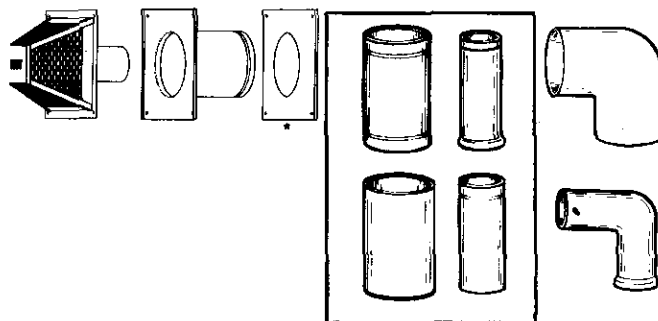


17. Using the tube of sealant supplied, run an ample amount of sealant around the edge of the vent pipe where it is inserted through the inside collar to seal air drafts from wall.



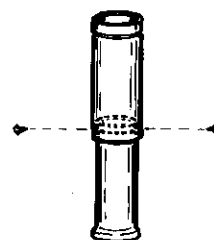
Optional Vertical Vent Kit With Standard Horizontal Vent Kit Installation #2

Any Optional Vent Kit



The opening through the wall should be cut at this time. If it hasn't been, refer back to that section.

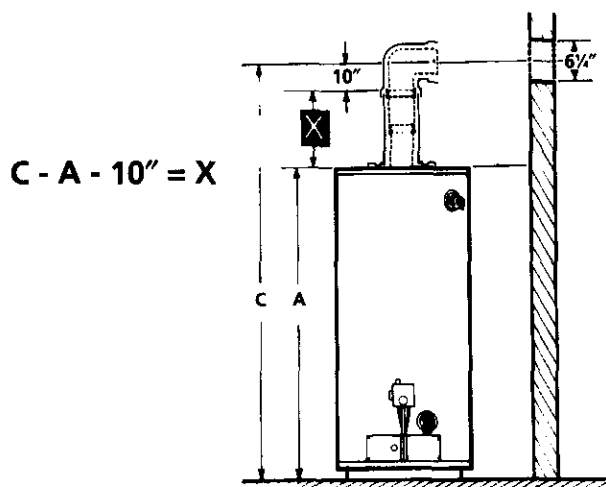
1. First it must be determined how far the vertical (3" dia.) telescoping flue sections are set and locked together using the two screws supplied as shown below.



Instructions for Installation (cont'd)

Optional Vertical Vent Kit (Cont'd)

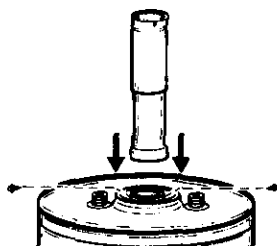
Use the chart, drawing and simple equation below to find the length of expansion of the telescoping flue sections. Because of manufacturing tolerances, place the telescoping extension on the water heater and adjust the height ("X" Dimension) and mark the point. Once the length has been determined, lock the two sections together by drilling two holes (180° apart) in the pipe and securing with the screws supplied.



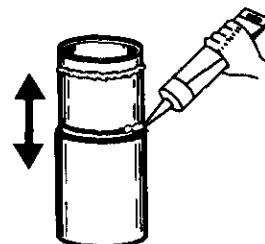
*GALLON CAPACITY	*BTU's in 1000's NAT.	A
40	40/40	48 ³ / ₄
50	48/44	61

*See models and rating plate attached to the water heater for specific model number and other detailed information.

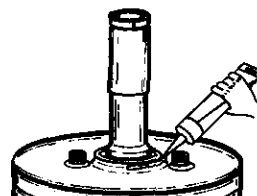
- Set the vertical (3" dia.) telescoping flue section in place on the flue collar. Using a #22 drill bit, drill two holes (180° apart) and secure the vertical assembly to the flue collar.



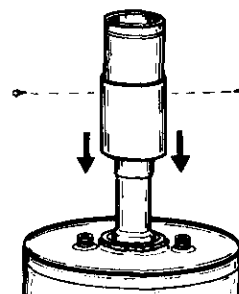
- Slide the 6" vent telescoping section apart to reveal the beads. Using the caulking supplied, fill the beads.



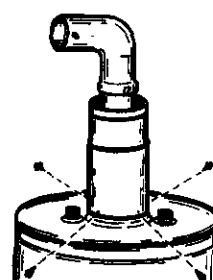
- Using the tube of sealant supplied, run an ample amount around the oval flare of the jacket.



- Place the 6" vent section over the 3" flue section. Subtract ³/₄" from the X dimension used earlier and this gives the length of the 6" vent extension. Slide the 6" vent extension apart to this dimension and lock it together using the two screws supplied.



- Bend the round end of the 6" vent extension oval at the jacket top and secure it using four sheet metal screws.

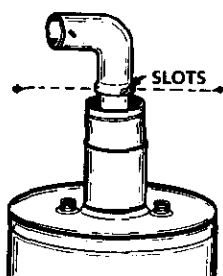


Instructions for Installation (cont'd)

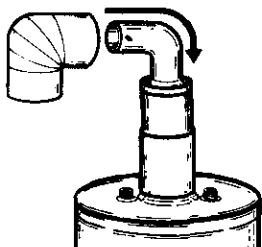
7. Place the 3" elbow on the flue extension.

NOTE: Make sure elbow is properly aligned to opening in the outside wall.

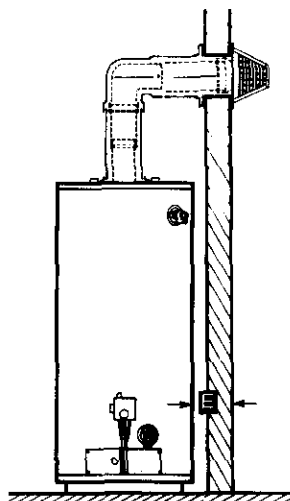
Mark the 3" dia. end of the flue extension at the slots the elbow. Using a #22 drill bit, drill holes into the flue extension at the two slots and secure the elbow to the flue extension using the screws provided.



8. Making sure the 6" diameter elbow is centered around the 3" diameter flue, secure the 6" diameter vent pipe using two sheet metal screws at the connection of the elbow and 6" vertical extension.

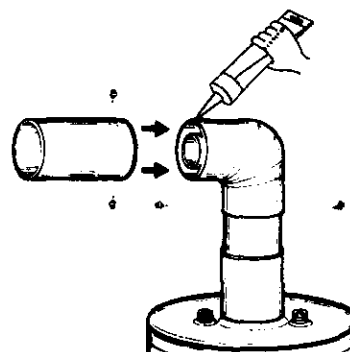


9. The standard vent kit includes a 6" diameter extension pipe which is used when "E" dimension over 6 1/2".

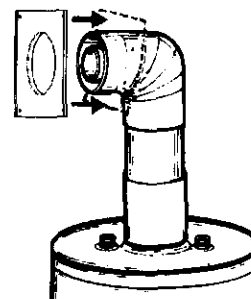


10. If "E" Dimension is less than 6 1/2" move to next step.

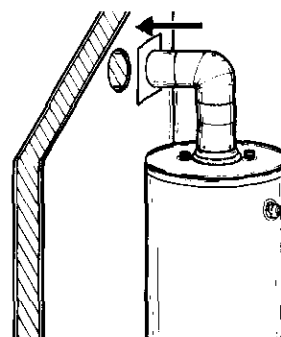
If "E" dimension is over 6 1/2", assemble the 6" diameter extension pipe to the 6" diameter vent elbow and secure using two sheet metal screws. Using the tube of sealant supplied, run an ample amount around the joint to insure a good seal.



11. Slide the vent collar (to be installed later) over the 6" vent elbow.



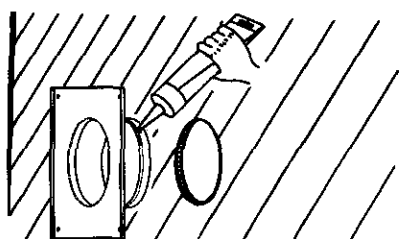
12. Place the water heater at the opening in the wall, at the predetermined clearance.



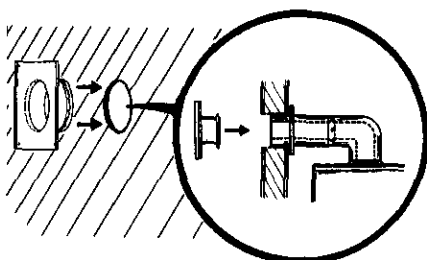
Instructions for Installation (cont'd)

Optional Vertical Vent Kit (cont'd)

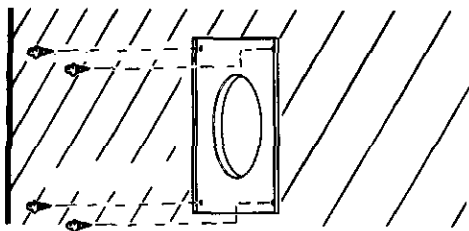
13. Move outdoors with all the remaining vent parts. Using the tube of sealant supplied, run an ample amount on the inside surface of the collar assembly that will contact the exterior wall and also fill the bead on the end of the 6" diameter vent collar.



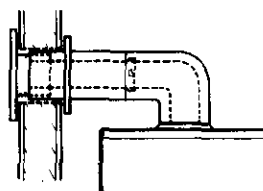
14. Install the vent collar assembly through the wall, connecting it to the extension and/or elbow (depending on which one was used).



15. We have supplied 4 wood screws to temporarily attach the collar to the exterior wall of the building. However, other types of screws may have to be substituted depending on the construction of the external wall.

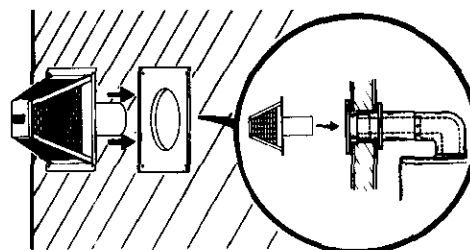


16. Insert the 3" diameter flue extension pipe into the vent collar assembly (flared & notched end first) and lock (turn clockwise to lock studs to slots) the flue extension pipe to the flue elbow.



17. Connect the vent cap by sliding its end over the 3" diameter extension pipe and O-ring.

NOTE: To facilitate ease of assembly of the vent cap to the 3" pipe, a soap solution can be applied to the O-ring gasket.

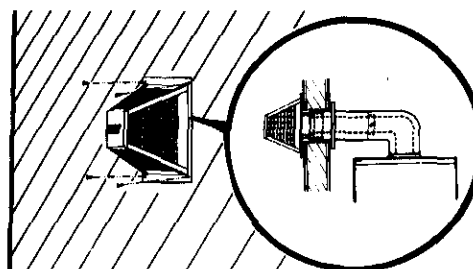


18. The vent cap has 4 holes around the outer edge. Remove the 4 screws used to temporarily attach the collar to the exterior wall. Then secure the vent cap assembly with the vent collar assembly to the exterior wall using the same 4 screws.

NOTE: Screws are supplied; however, substitution may be necessary depending on the exterior wall material.

▲ CAUTION

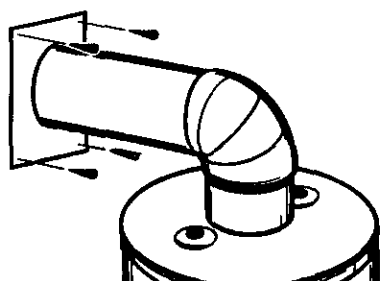
To prevent unlocking the previously installed 3" diameter extension, the vent cap assembly must be rotated in a clockwise motion when the vent cap is installed.



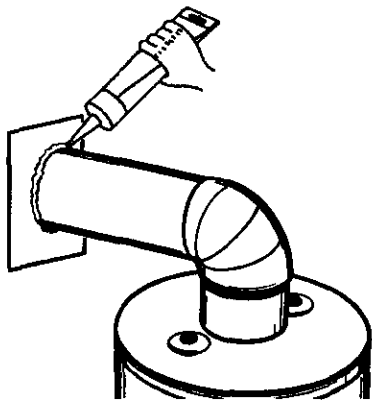
Instructions for Installation (cont'd)

19. Go back indoors to attach inside collar to the inside wall. Place the collar against the wall. Secure to wall by using 4 long sheet metal screws.

NOTE: Screws are supplied; however, substitution may be necessary depending on the interior wall material.

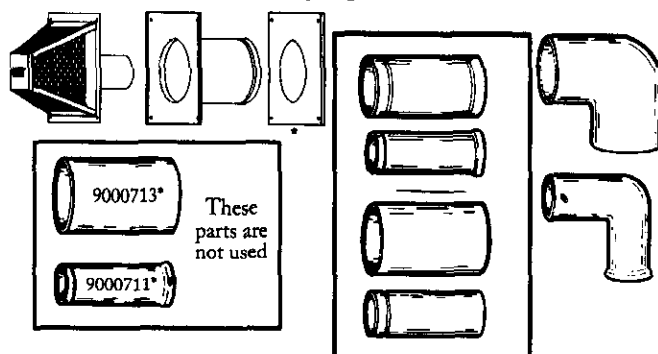


20. Using the tube of sealant supplied, run an ample amount of sealant around the edge of the vent pipe where it is inserted through the inside collar to seal air drafts from wall.



Optional Horizontal Vent Kit Installation #3

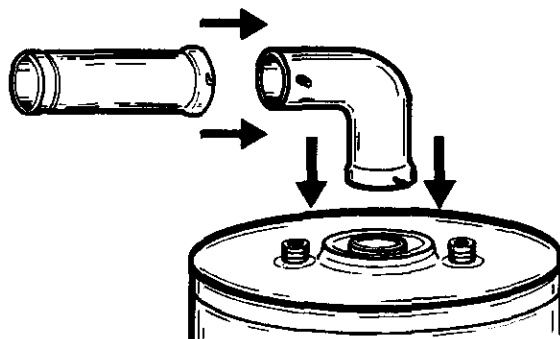
Any Optional Vent Kit



*Each part is stamped with a part number

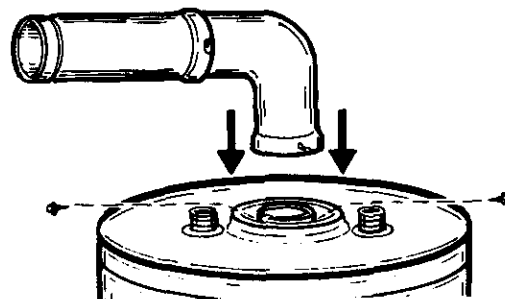
The opening through the wall should be cut at this time. If it hasn't been, refer back to that section.

1. Lock the elbow to the straight 3" flue pipe. Set the assembly in place on the end of the water heater's flue collar.



2. Mark the flue collar at the slots in the elbow. Using a #22 drill bit, drill holes into the flue collar at the two slots and secure the elbow to the flue collar using the screws provided.

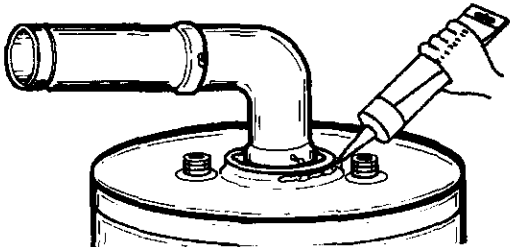
NOTE: Make sure elbow is properly aligned to opening in the outside wall.



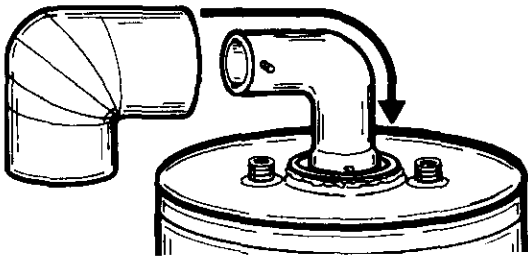
Instructions for Installation (cont'd)

Optional Horizontal Vent Kit (Cont'd)

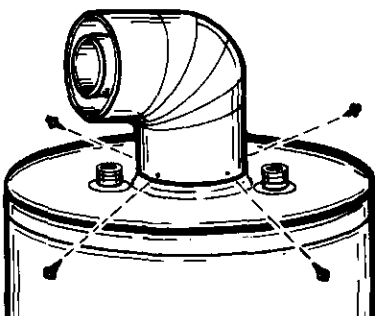
3. Using the tube of sealant supplied, run an ample amount around the oval flare of the jacket.



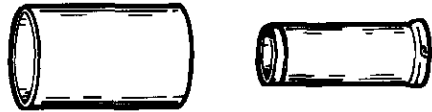
4. First remove the 3" horizontal extension from the elbow. Starting with the long end (with four securing holes), place the 6" diameter vent elbow over the 3" diameter elbow. Bend the round end "oval" to fit the flared oval end of the jacket top.



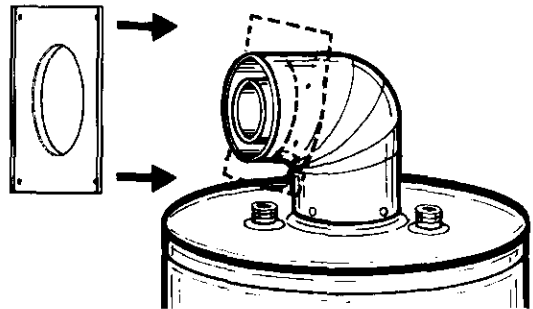
5. Making sure the 6" diameter elbow is centered around the 3" diameter flue, secure the 6" diameter vent pipe using four sheet metal screws at the connection of the jacket top.



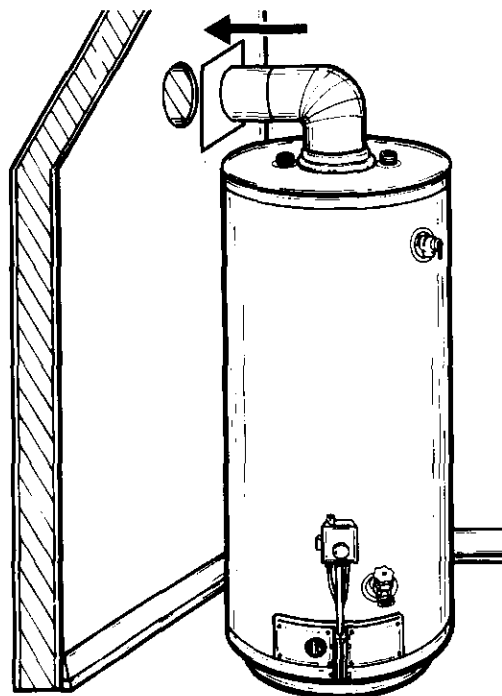
6. The standard kit includes a single piece of 3" flue and 6" vent pipe which will not be used in conjunction with the horizontal kit.



7. Slide the vent collar (to be installed later) over the 6" vent elbow.



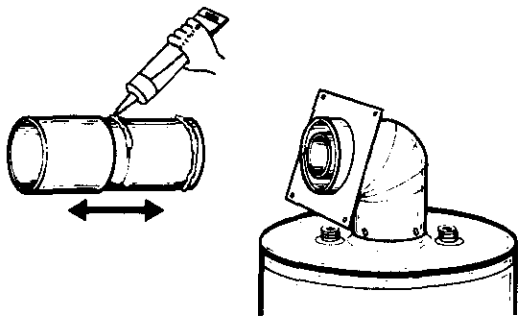
8. Place the water heater at the opening in the wall, at the predetermined clearance.



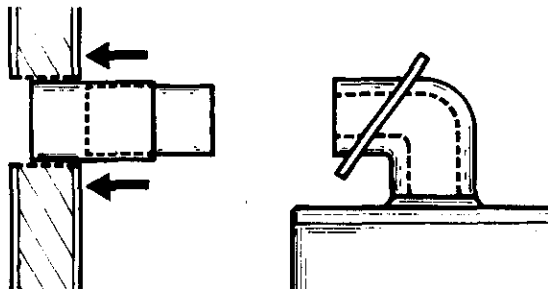
Instructions for Installation (cont'd)

9. Slide the 6" telescoping vent section apart to reveal the beads.

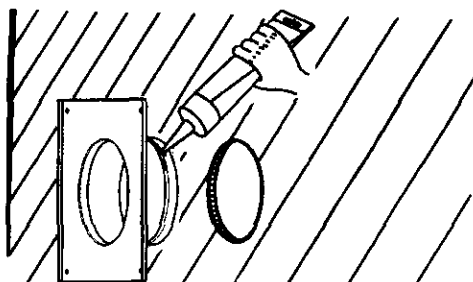
NOTE: The section of 6" pipe with beads will connect to the elbow. Using the caulking supplied, fill the beads.



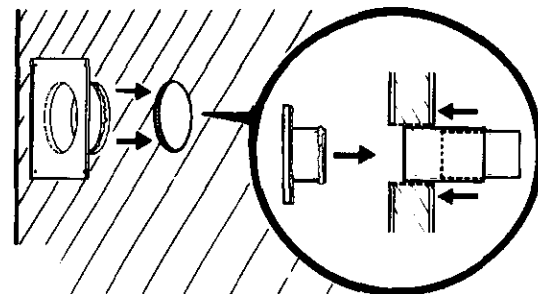
10. Insert the 6" telescoping vent section into the wall.



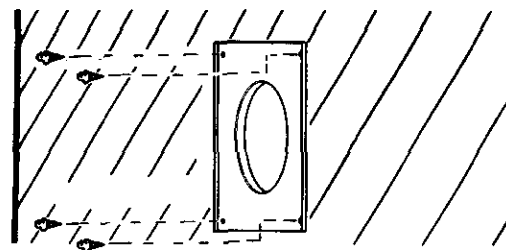
11. Move outdoors with all the remaining vent parts. Using the tube of sealant supplied, run an ample amount on the inside surface of the collar assembly that will contact the exterior wall and also fill the bead on the end of the 6" diameter vent collar.



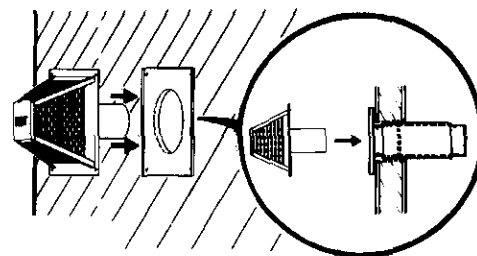
12. Install the vent collar assembly through the wall, connecting it to the 6" telescoping extension. Remember, the extension is not connected yet and it may be necessary to go back indoors and push it back up for a tight fit to the collar.



13. We have supplied 4 wood screws to temporarily attach the collar to the exterior wall to the building. However, other types of screws may have to be substituted depending on the construction of the exterior wall.



14. Place the vent cap in the vent collar assembly.

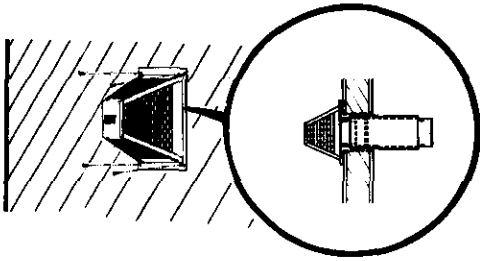


Instructions for Installation (cont'd)

Optional Horizontal Vent Kit (cont'd)

15. The vent cap has 4 holes around the outer edge. Remove the 4 screws used to temporarily attach the collar to the exterior wall. Then secure the vent cap assembly with the vent collar assembly to the exterior wall using the same 4 screws.

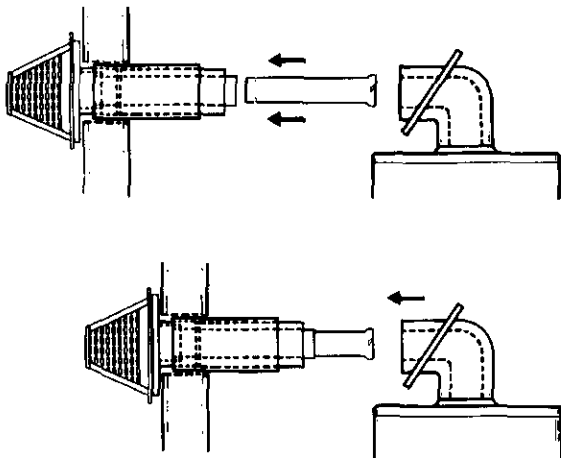
NOTE: Screws are supplied; however, substitution may be necessary, depending on the exterior wall material.



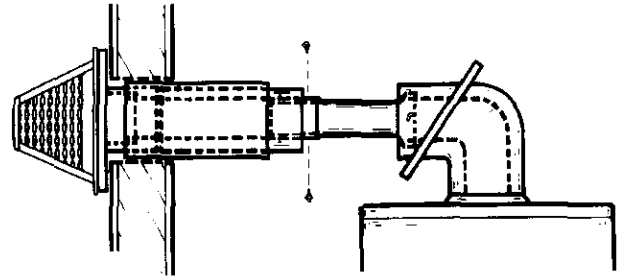
16. Move indoors to complete the assembly process.

17. Collapse the 6" flue extension assembly as shown below and install the 3" extension by first slipping the end with the O-ring approximately 1 1/4" into the end of the vent cap. Lock the other end of the 3" extension to the studs in the elbow.

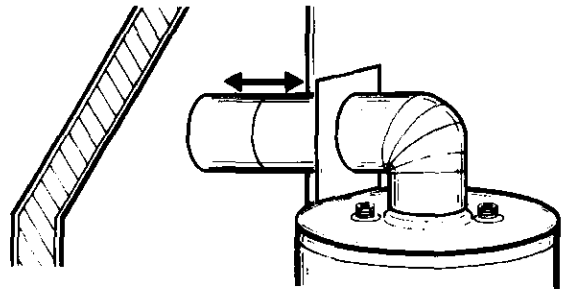
NOTE: To facilitate ease of assembly of the vent cap to the 3" pipe, a soap solution can be applied to the O-ring gasket.



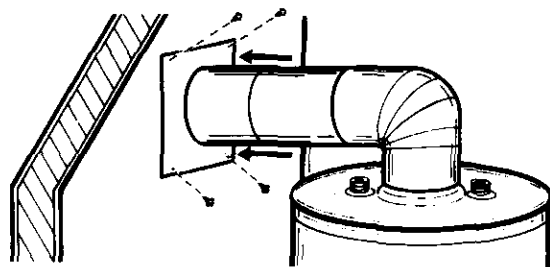
18. Using a #22 drill bit, drill holes 180° apart at the connection point of the two 3" flue extensions. Then using 2 screws provided, lock these pipes together.



19. Now the 6" vent extension pipes can be expanded to connect at the vent elbow.

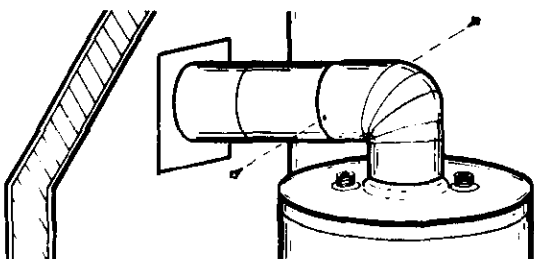


20. Pull the vent collar from the elbow to be against the wall and secure it using the screws provided.



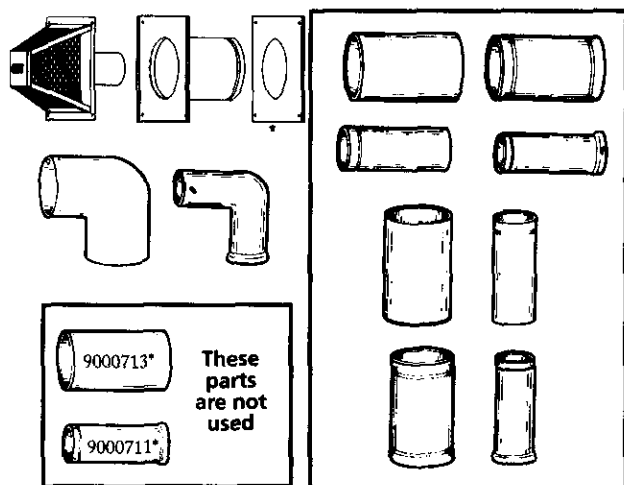
Instructions for Installation (cont'd)

21. Lock the 6" vent extension to the vent elbow by using two screws provided, placing them 180° apart.



Optional Vertical and Horizontal Vent Kit Installation #4

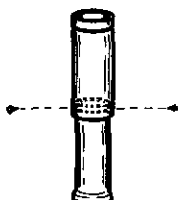
Any Two Optional Vent Kits



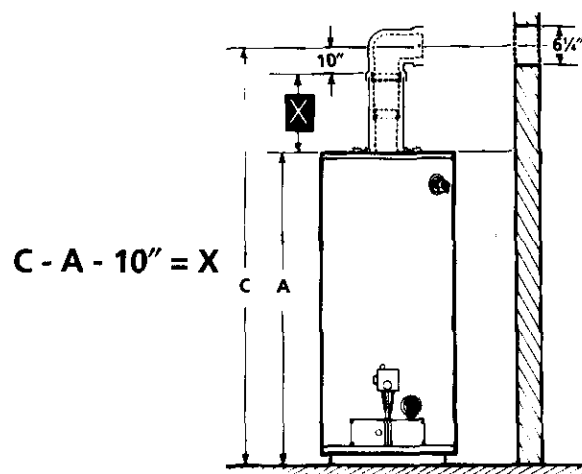
* Each part is stamped with a part number

The opening through the wall should be cut at this time. If it hasn't been, refer back to that section.

1. First it must be determined how far the vertical (3" dia.) telescoping flue sections are set and locked together using the two screws supplied as shown below.



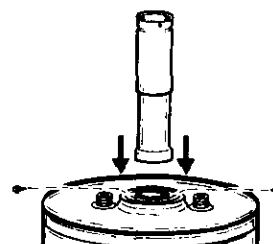
Use the chart, drawing and simple equation below to find the length of expansion of the telescoping flue sections. Because of manufacturing tolerances, place the telescoping extension on the water heater and adjust the height ("X" Dimension) and mark the point. Once the length has been determined, lock the two sections together by drilling two holes (180° apart) in the pipe and securing with the screws supplied.



*GALLON CAPACITY	*BTU's in 1000's NAT.	A
40	40/40	48 ³ / ₄
50	48/44	61

*See models and rating plate attached to the water heater for specific model number and other detailed information.

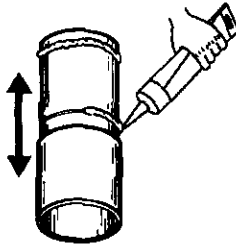
2. Set the vertical (3" dia.) telescoping flue section in place on the flue collar. Using a #22 drill bit, drill two holes (180° apart) and screw the vertical assembly to the flue collar.



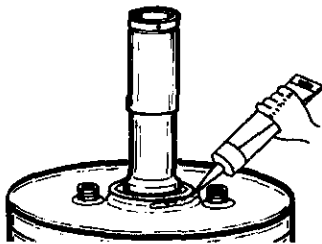
Installation Instructions (cont'd)

Optional Vertical and Horizontal Vent Kits (cont'd)

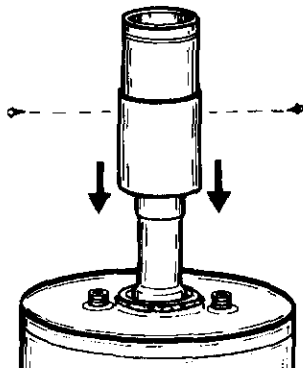
3. Slide the 6" vent telescoping section apart to reveal the beads. Using the caulking supplied, fill the beads.



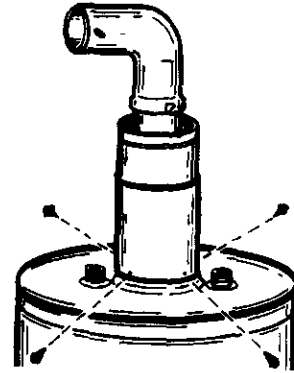
4. Using the tube of sealant supplied, run an ample amount around the oval flare of the jacket.



5. Place the 6" vent section over the 3" flue section. Subtract $\frac{3}{4}$ " from the X dimension used earlier and this gives the length of the 6" vent extension. Slide the 6" vent extension apart to this dimension and lock it together using the two screws supplied.

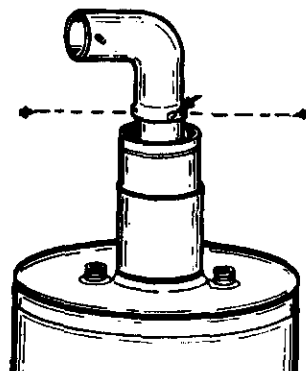


6. Bend the round end of the 6" vent extension oval at the jacket tip and secure it using four sheet metal screws.



7. Place the 3" elbow on the flue extension.
NOTE: Make sure elbow is properly aligned to opening in the outside wall.

Mark the 3" dia. end of the flue extension at the slots in the elbow. Using a #22 drill bit, drill holes into the flue extension at the two slots and secure the elbow to the flue extension using the screws provided

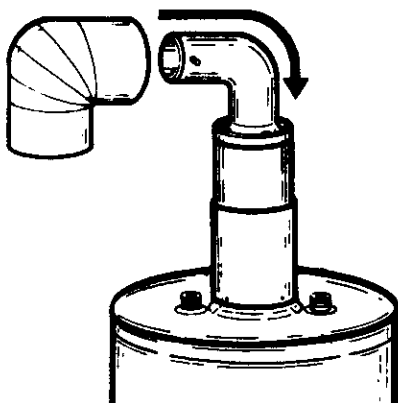


8. The standard kit includes a single piece of 3" flue and 6" vent pipe which will not be used in conjunction with the optional horizontal kit.

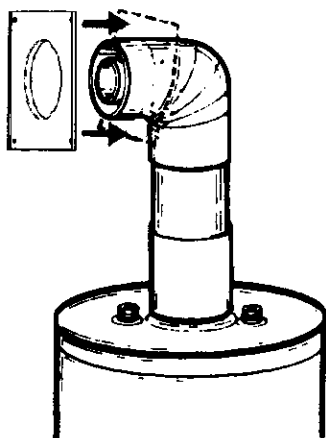


Installation Instructions (cont'd)

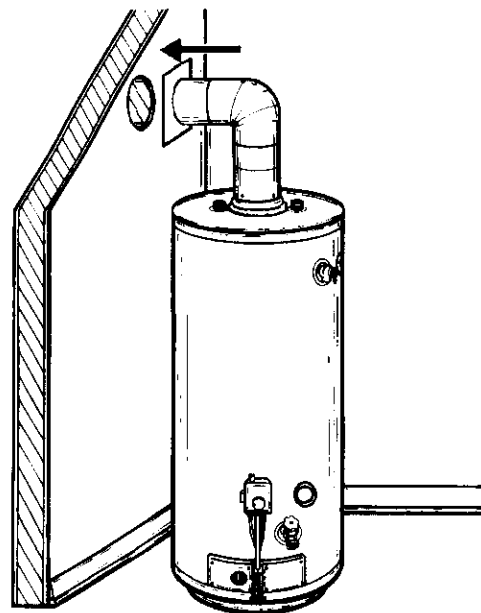
9. Making sure the 6" diameter elbow is centered around the 3" diameter flue, secure the 6" diameter vent pipe using two sheet metal screws at the connection of the elbow and 6" vertical extension.



10. Slide the vent collar (to be installed later) over the 6" vent elbow.

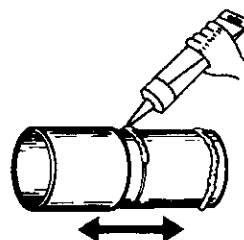


11. Place the water heater at the opening in the wall, at the predetermined clearance.

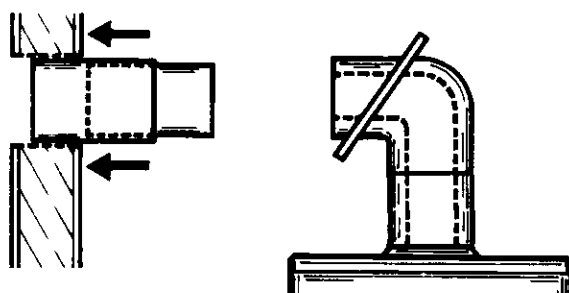


12. Slide the 6" telescoping vent section apart to reveal the beads.

NOTE: The 6" pipe with beads will connect to the elbow. Using the caulking supplied, fill the beads.



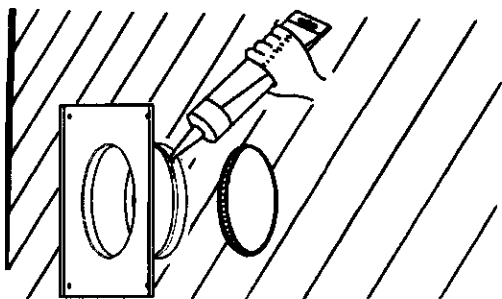
13. Insert the 6" telescoping vent section into the wall.



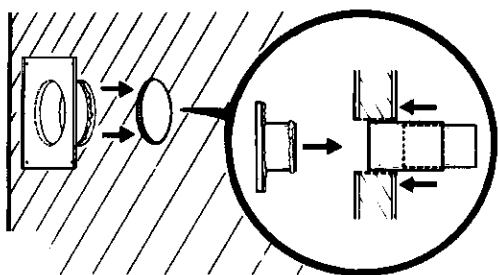
Instructions for Installation (cont'd)

Optional Vertical and Horizontal Vent Kits (Cont'd)

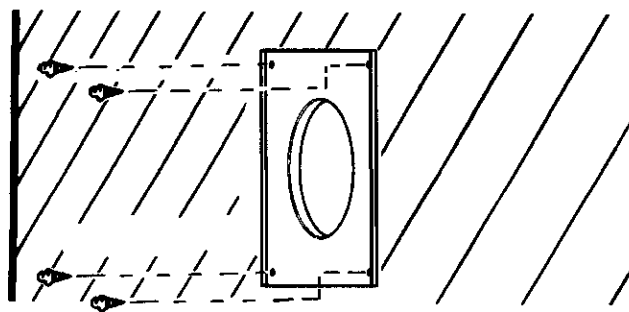
14. Move outdoors with all the remaining vent parts. Using the tube of sealant supplied, run an ample amount on the inside surface of the collar assembly that will contact the exterior wall and also fill the bead on the end of the 6" diameter vent collar.



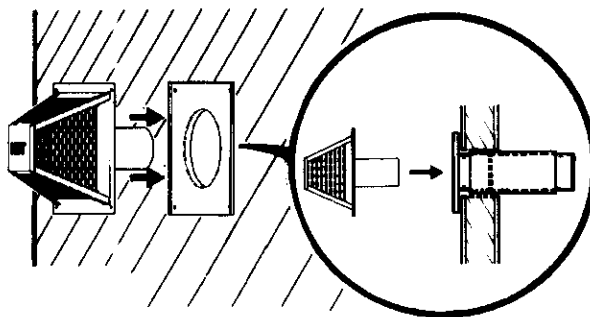
15. Install the vent collar assembly through the wall, connecting it to the 6" telescoping extension. Remember, the extension is not connected yet and it may be necessary to go back indoors and push it back up for a tight fit to the collar.



16. We have supplied 4 wood screws to temporarily attach the collar to the exterior wall of the building. However, other types of screws may have to be substituted depending on the construction of the exterior wall.

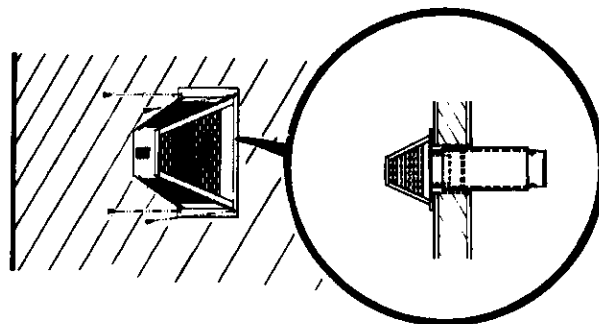


17. Place the vent cap in the vent collar assembly.



18. The vent cap has 4 holes around the outer edge. Remove the 4 screws used to temporarily attach the collar to the exterior wall. Then secure the vent cap assembly with the vent collar assembly to the exterior wall using the same 4 screws.

NOTE: Screws are supplied; however, substitution may be necessary, depending on the exterior wall material.

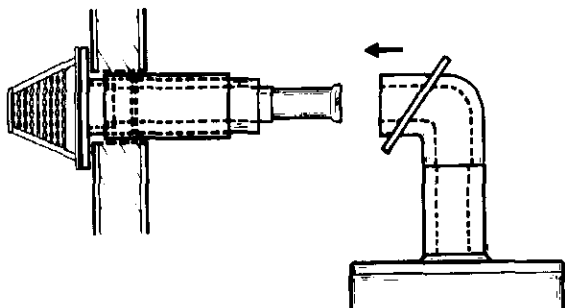
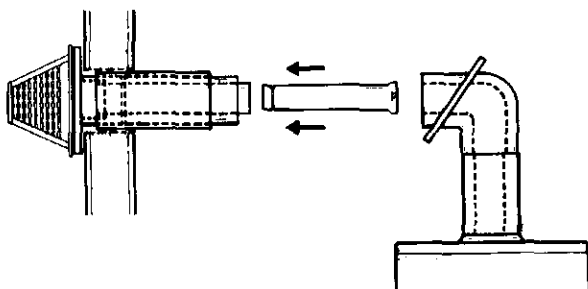


19. Move indoors to complete the assembly process.

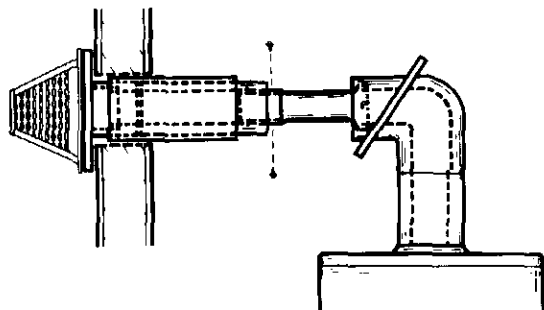
Instructions for Installation (cont'd)

20. Collapse the 6" vent extension pipes as shown below and install the 3" extension by first slipping the end with the O-ring approximately 1 1/4" into the end of the vent cap. Lock the other end of the 3" extension assembly to the studs in the elbow.

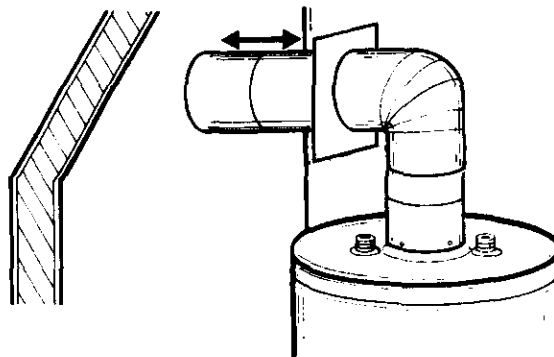
NOTE: To facilitate ease of assembly of the vent cap to the 3" pipe, a soap solution can be applied to the O-ring gasket.



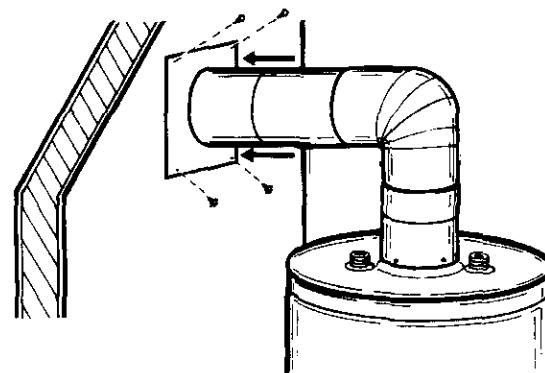
21. Using a #22 drill bit, drill holes 180° apart at the connection point of the two 3" flue extensions. Then using 2 screws provided, lock these pipes together.



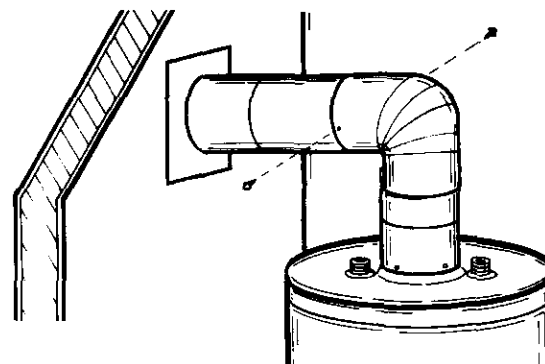
22. Now the 6" vent extension pipes can be expanded to connect at the vent elbow.



23. Pull the vent collar from the elbow to be against the wall and secure it using the screws provided.



24. Lock the 6" vent extension to the vent elbow by using two screws provided, placing them 180° apart.



Instructions for Installation (cont'd)

Water Piping

▲ WARNING

HOTTER WATER CAN SCALD: Water heaters are intended to produce hot water. Water heated to a temperature which will satisfy clothes washing, dish washing, and other sanitizing needs can scald and permanently injure you upon contact. Some people are more likely to be permanently injured by hot water than others. These include the elderly, children, the infirm, or physically/mentally handicapped. If anyone using hot water in your home fits into one of these groups or if there is a local code or state law requiring a certain temperature water at the hot water tap, then you must take special precautions. In addition to using the lowest possible temperature setting that satisfies your hot water needs, a means such as a mixing valve, should be used at the hot water taps used by these people or at the water heater. Mixing valves are available at plumbing supply or hardware stores. Follow manufacturers instructions for installation of the valves. Before changing the factory setting on the thermostat, read the "Temperature Regulation" section in this manual.

If a water heater is installed in a closed water supply system; such as one having a back-flow preventer, check valve, water meter with a check valve, etc... in the cold water supply; means shall be provided to control thermal expansion. Contact the local utility or call Maytag Customer Service Center at 1-800-788-8899 for an authorized installer on how to control this situation.

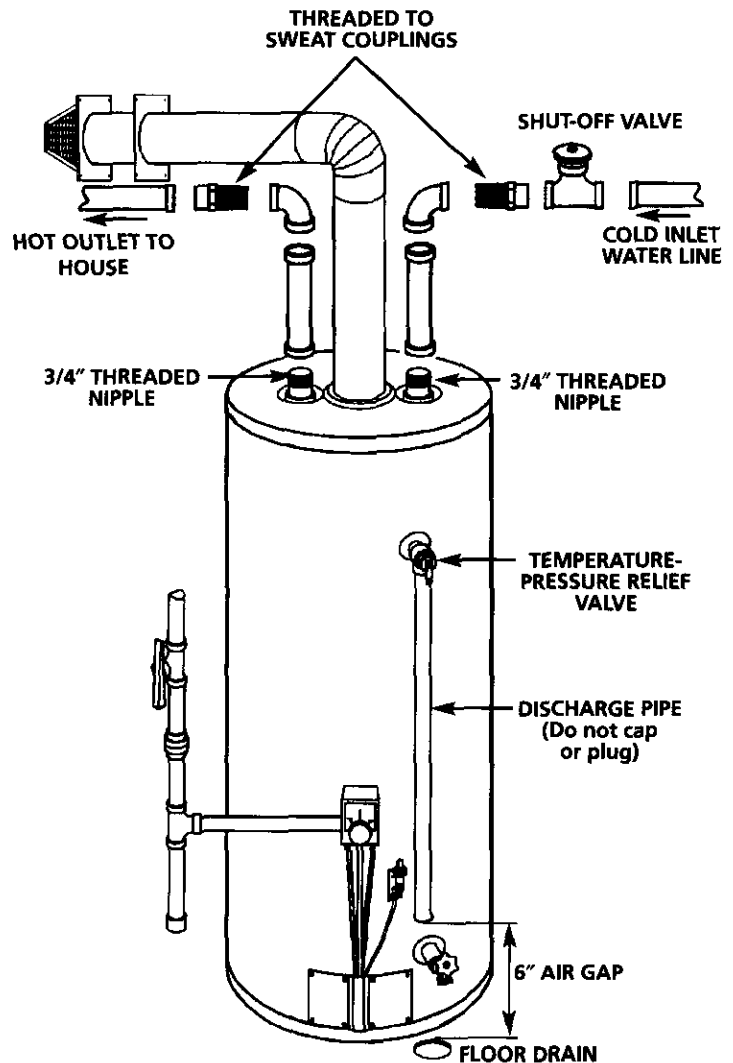
NOTE: To protect against untimely corrosion of hot and cold water fittings, it is strongly recommended that di-electric unions or couplings be installed on this water heater when connected to copper pipe.

The illustration shows the attachment of the water piping to the water heater. The water heater is equipped with $\frac{3}{4}$ inch water connections.

NOTE: If using copper tubing, solder tubing to an adapter before attaching the adapter to the cold water inlet connection. Do not solder the cold water supply line directly to the cold water inlet. It will harm the dip tube and damage the tank.

- Look at the top cover of the water heater. The water outlet is marked hot. Put two or three turns of teflon tape around the threaded end of the threaded-to-sweat coupling and around both ends of the $\frac{3}{4}$ " threaded nipple. Using flexible connectors, connect the hot water pipe to the hot water outlet on the water heater.
- Look at the top cover of the water heater. The cold water inlet is marked cold. Put two or three turns of teflon tape around the threaded end of the threaded-to-sweat coupling and around both ends of the $\frac{3}{4}$ " threaded nipple. Using flexible connectors, connect the cold water pipe to the cold water inlet of the water heater.

NOTE: This water heater is insulated to minimize heat loss from the tank. Further reduction in heat loss can be accomplished by insulating the hot water lines from the water heater.



Instructions for Installation (cont'd)

Temperature-Pressure Relief Valve

▲ WARNING

At the time of manufacture this water heater was provided with a combination temperature-pressure relief valve certified by a nationally recognized testing laboratory that maintains periodic inspection of production of listed equipment or materials, as meeting the requirements for Relief Valves and Automatic Gas Shutoff Devices for Hot Water Supply Systems, and the current edition of ANSI Z21.22 and the code requirements of ASME. If replaced, the valve must meet the requirements of local codes, but not less than a combination temperature and pressure relief valve certified as meeting the requirements for Relief Valves and Automatic Gas Shutoff Devices for Hot Water Supply Systems, ANSI Z21.22 by a nationally recognized testing laboratory that maintains periodic inspection of production of listed equipment or materials.

The valve must be marked with a maximum set pressure not to exceed the marked hydrostatic working pressure of the water heater (150 lbs./sq. in.) and a discharge capacity not less than the water heater input rate as shown on the model rating plate. (Electric heaters - watts divided by 1000 x 3415 equal BTU/Hr. rate.)

Your local jurisdictional authority, while mandating the use of a temperature-pressure relief valve complying with ANSI Z21.22 and ASME, may require a valve model different from the one furnished with the water heater.

Compliance with such local requirements must be satisfied by the installer or end user of the water heater with a locally prescribed temperature-pressure relief valve installed in the designated opening in the water heater in place of the factory furnished valve.

For safe operation of the water heater, the relief valve must not be removed from its designated opening or plugged.

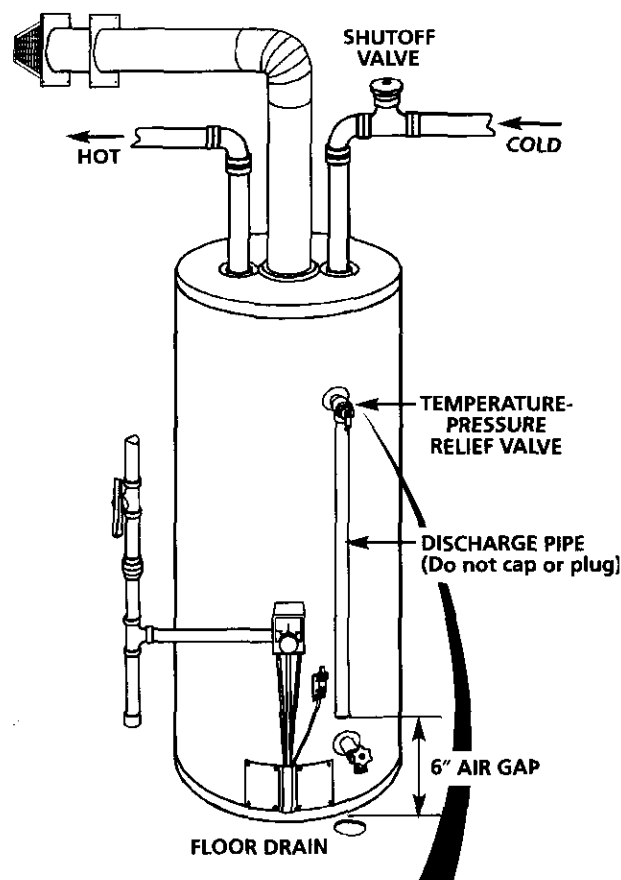
The temperature-pressure relief valve must be installed directly into the fitting of the water heater designated for the relief valve. Position the valve downward and provide tubing so that any discharge will exit only within 6 inches above, or at any distance below the structural floor. Be certain that no contact is made with any live electrical part. The discharge opening must not be blocked or reduced in size under any circumstances. Excessive length, over 30 feet, or use of more than four elbows can cause restriction and reduce the discharge capacity of the valve. No valve or other obstruction is to be placed between the relief valve and the tank. Do not connect tubing directly to discharge drain unless a 6" air gap is provided. To prevent bodily injury, hazard to life, or property damage, the relief valve must be allowed to discharge water in quantities should circumstances demand. If the discharge pipe is not connected to a drain or other suitable means, the water flow may cause property damage.

The Discharge Pipe:

- Must not be smaller in size than the outlet pipe size of the valve, or have any reducing couplings or other restrictions.
- Must not be plugged or blocked.
- Must be of material listed for hot water distribution.
- Must be installed so as to allow complete drainage of both the temperature-pressure relief valve, and the discharge pipe.
- Must terminate at an adequate drain.
- Must not have any valve between the relief valve and tank.

▲ WARNING

The temperature-pressure relief valve must be manually operated at least once a year. Caution should be taken to ensure that (1) no one is in front of or around the outlet of the temperature-pressure relief valve discharge line, and (2) the water manually discharged will not cause any bodily injury or property damage because the water may be extremely hot. If after manually operating the valve, it fails to completely reset and continues to release water, immediately close the cold water inlet to the water heater, follow the draining instructions, and replace the temperature-pressure relief valve with a new one.



RELIEF VALVE OPENING

"THIS WATER HEATER IS APPROVED WITH A COMBINATION TEMPERATURE-PRESSURE RELIEF VALVE. FOR SAFE OPERATION OF THE WATER HEATER, THE RELIEF VALVE(S) MUST NOT BE REMOVED FROM ITS DESIGNATED POINT OF INSTALLATION OR PLUGGED."

YOUR LOCAL JURISDICTIONAL AUTHORITY, WHILE MANDATING THE USE OF A TEMPERATURE-PRESSURE RELIEF VALVE COMPLYING WITH ANSI Z21.22 AND ASME, MAY REQUIRE A VALVE MODEL DIFFERENT FROM THE ONE FURNISHED WITH THE WATER HEATER.

COMPLIANCE WITH SUCH LOCAL REQUIREMENTS MUST BE SATISFIED BY THE INSTALLER OR END USER OF THE WATER HEATER WITH A LOCALLY PRESCRIBED TEMPERATURE-PRESSURE RELIEF VALVE INSTALLED IN THE DESIGNATED OPENING IN THE WATER HEATER.

SEE MANUAL HEADING - "TEMPERATURE-PRESSURE RELIEF VALVES" FOR INSTALLATION AND MAINTENANCE OF RELIEF VALVE, DISCHARGE LINE AND OTHER SAFETY PRECAUTIONS.

Instructions for Installation (cont'd)

Filling the Water Heater

▲ CAUTION

Never use this water heater unless it is completely filled with water. To prevent damage to the tank, the tank must be filled with water. Water must flow from the hot water faucet before turning "ON" gas to the water heater.

To fill the water heater with water:

- Close the water heater drain valve by turning the handle to the right (clockwise). The drain valve is on the lower front of the water heater.
- Open the cold water supply valve to the water heater.
NOTE: The cold water supply valve must be left open when the water heater is in use.
- To insure complete filling of the tank, allow air to exit by opening the nearest hot water faucet. Allow water to run until a constant flow is obtained. This will let air out of the water heater and the piping.
- Check all new water piping for leaks. Repair as needed.

Gas Piping

▲ WARNING

Make sure the gas supplied is the same type listed on the model rating plate. The inlet gas pressure must not exceed 10.5 in. water column (2.6kPa) for natural gas or 13 in. water column (3.2kPa) for propane (L.P.) gas. The minimum inlet gas pressure listed on the model rating plate is for the purpose of input adjustment.

▲ WARNING

If the gas control valve is subjected to pressures exceeding $\frac{1}{2}$ pound per square inch (3.5kPa), the damage to the gas control valve could result in a fire or explosion from leaking gas.

▲ WARNING

If the main gas line shutoff serving all gas appliances is used, also turn "OFF" the gas at each appliance. Leave all gas appliances shut off until the water heater installation is complete.

A gas line of sufficient size must be run to the water heater. Consult the current edition of National Fuel Gas Code ANSI Z223.1, also referred to as NFPA 54 and the gas company concerning pipe size.

There must be:

- A readily accessible manual shut off valve in the gas supply line serving the water heater, and
- A drip leg (sediment trap) ahead of the gas control valve to help prevent dirt and foreign materials from entering the gas control valve.
- A flexible gas connector or a ground joint union between the shutoff valve and control valve to permit servicing of the unit.

Be sure to check all the gas piping for leaks before lighting the water heater. Use a soapy water solution, not a match or open flame. Rinse off soapy solution and wipe dry.

Standard Models are for installation up to 3,300 feet above sea level.

High Altitude Models are for installation from 3,300 to 5,500 feet above sea level.

If a standard model is installed above 3,300 feet or a high altitude model is installed above 5,500 feet, the input rating must be reduced at the rate of 4 percent for each 1,000 feet above sea level which requires replacement of the burner orifice in accordance with the National Fuel Gas Code ANSI Z223.1 / NFPA 54. Contact your local gas utility for further information.

▲ WARNING

Failure to replace the orifice could result in improper and inefficient operation of the appliance, producing carbon monoxide gas in excess of safe limits, which could result in serious injury or death. Contact your gas supplier for any specific changes which may be required in your area.

▲ WARNING

The appliance and its gas connection must be leak tested before placing the appliance in operation.

▲ WARNING

- The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of the gas system at test pressures in excess of $\frac{1}{2}$ pound per square inch (3.5kPa).
- The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal or less than $\frac{1}{2}$ pound per square inch (3.5kPa).

Instructions for Installation (cont'd)

▲ WARNING

Use pipe joint compound or teflon tape marked as being resistant to the action of petroleum [Propane (L.P.)] gases.

SEDIMENT TRAP

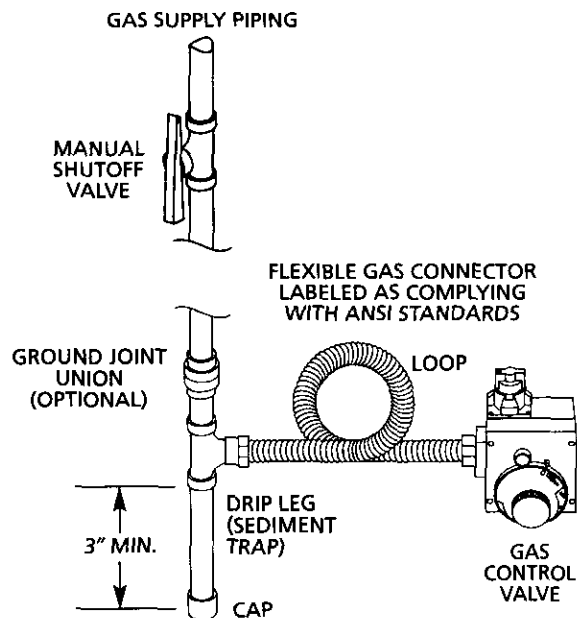
A sediment trap shall be installed as close to the inlet of the water heater as practical at the time of water heater installation. The sediment trap shall be either a tee fitting with a capped nipple in the bottom outlet or other device recognized as an effective sediment trap. If a tee fitting is used, it shall be installed in conformance with one of the methods of installation shown below.

Connecting the gas piping to the gas control valve of the water heater can be accomplished by either of the two methods shown.

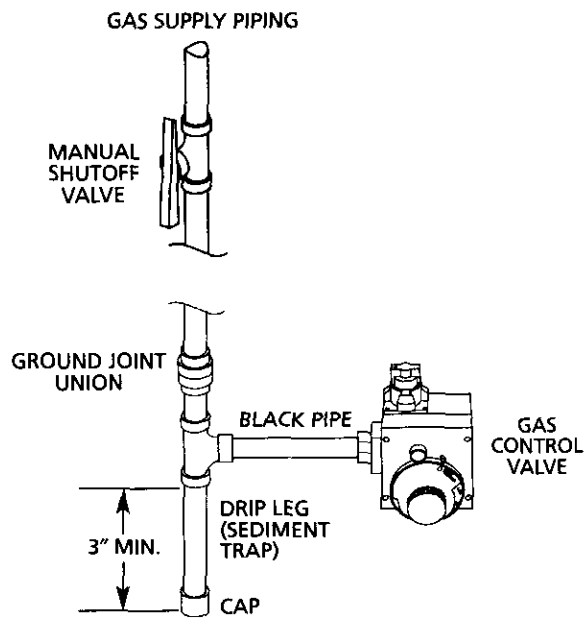
▲ WARNING

Contaminants in the gas lines may cause improper operation of the gas control valve that may result in fire or explosion. Before attaching the gas line be sure that all gas pipe is clean on the inside. To trap any dirt or foreign material in the gas supply line, a drip leg (sometimes called a sediment trap) must be incorporated in the piping. The drip leg must be readily accessible. Install in accordance with the "Gas Piping" section. Refer to the current edition of the National Fuel Gas Code, ANSI Z223.1, also referred to as NFPA 54.

GAS PIPING WITH FLEXIBLE CONNECTOR



GAS PIPING WITH ALL BLACK IRON PIPE TO GAS CONTROL



Instructions for Installation (cont'd)

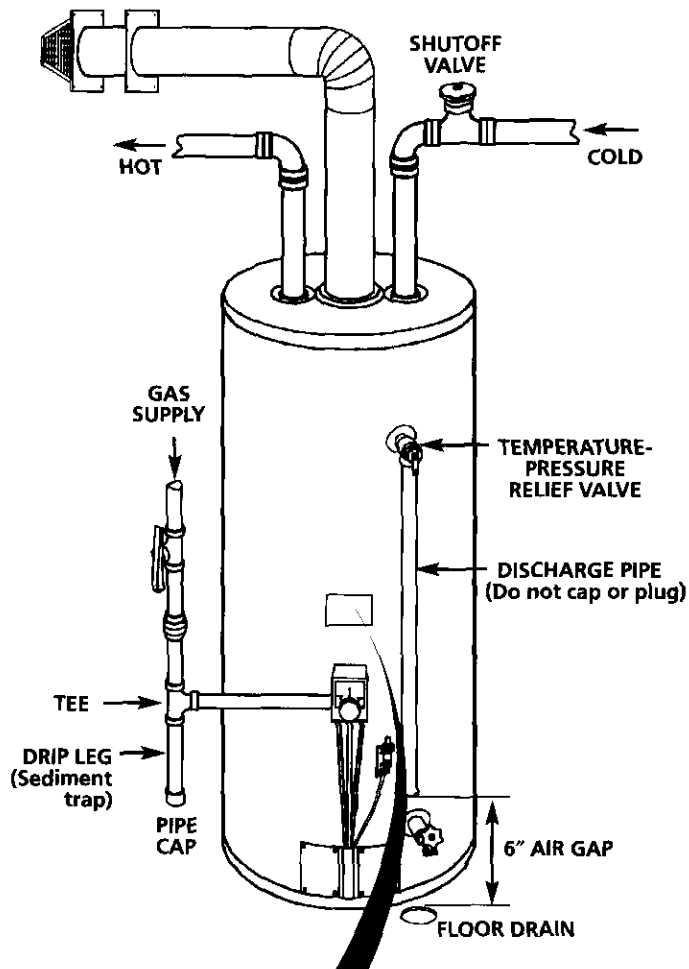
Installation Checklist

BEFORE LIGHTING THE PILOT:

- Check the gas lines for leaks.
 - a. Use a soapy water solution. DO NOT test for gas leaks using a match or open flame.
 - b. Brush the soapy water solution on all gas pipes, joints and fittings.
 - c. Check for bubbling soap. This means you have a leak. Turn "OFF" gas and make the necessary repairs.
 - d. Recheck for leaks.
 - e. Rinse off soapy solution and wipe dry.
- Is the new temperature-pressure relief valve properly installed and piped to an adequate drain? See "Temperature-Pressure Relief Valve" section.
- Are the cold and hot water lines connected to the water heater correctly? See "Water Piping" instructions in the "Instructions for Installation" section.
- Is the water heater completely filled with water? See "Filling" instructions in the "Instructions for Installation" section.
- Will a water leak damage anything? See the "Locating the New Water Heater" section.
- Is there proper clearance between the water heater and anything that might catch fire? See the "Locating the New water Heater" section.
- Do you have adequate ventilation so that the water heater will operate properly? See "Combustion Air and Ventilation" in the "Instructions for Installation" section.
- Is the draft hood vent piping properly secured? See "Venting" instructions in the "Instructions for Installation" section.
- Is there proper clearance between the vent pipe and anything that might catch on fire? See "Venting" instructions in the "Instructions for Installation" section.
- Is the vent pipe properly sloped and does the vent terminate outdoors? See "Venting" instructions in the "Instructions for Installation" section.
- Do you need to call your gas company to check the gas pipe and its hookup?

CHECK FOR LEAKS

Be sure to check all your gas pipes for leaks before lighting your water heater. Use a soapy water solution, not a match or open flame. Check the factory gas fittings after pilot is lit and gas control knob is still in "PILOT" position. Then, check the fittings when the main burner is turned "ON". Use a soapy water solution for this, too.



SUITABLE FOR WATER (POTABLE) HEATING ONLY				
MODEL NUMBER		CAPACITY		
		U.S. GAL.		
EQUIPPED FOR	INPUT	RECOVERY	SERIAL NUMBER	
GAS	BTU/HR	GAL./HR.		
MAXIMUM HYDROSTATIC WORKING PRESSURE		MAX. INLET	GAS PRESSURE IN W.C. MIN. INLET PRESSURE	
150				
P.S.I.		W.C.	W.C.	
AUTOMATIC STORAGE WATER HEATER FOR DIRECT VENT INSTALLATION				
Maytag® is a Trademark of Maytag Corporation and is used under License to State Industries, Inc.				

MODEL RATING PLATE

Instructions for Operation

Lighting

▲ WARNING

BEFORE LIGHTING [PROPANE (L.P.) GAS WATER HEATERS]: Propane (L.P.) gas is heavier than air. Should there be a leak in the system, the gas will settle near the ground. Basements, crawl spaces, skirted areas under manufactured (mobile) homes (even when ventilated), closets and areas below ground level will serve as pockets for the accumulation of this gas. Before attempting to light or relight the water heater's pilot or turning on a nearby electrical light switch, be absolutely sure there is no accumulated gas in the area. Search for odor of gas by sniffing at ground level in the vicinity of the appliance. If odor is detected, follow steps indicated at "For Your Safety" on the cover page of this manual then leave the premises.

Lighting and operating instructions are located on front of the water heater, above or to one side of the gas control valve.

▲ WARNING

AN ODORANT IS ADDED TO THE GAS USED BY THIS WATER HEATER.

**FOR YOUR SAFETY
IF YOU SMELL GAS:**

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

▲ WARNING

DO NOT force the gas control knob. Use only your hand to push it down to light the pilot, or to turn it to "ON", "OFF" or "PILOT". Never use a tool such as a lever, wrench or pliers. Do not hit or damage the knob. A damaged knob may result in an explosion and serious injury. If you have problem turning the knob, call the gas supplier immediately.

Figure 10

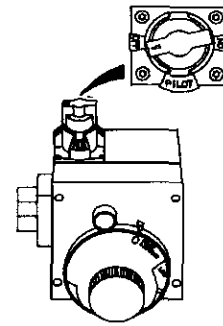


Figure 11

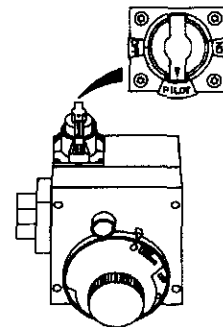


Figure 12

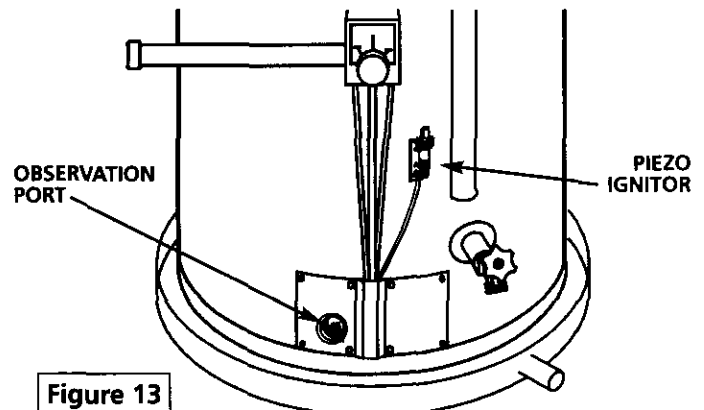
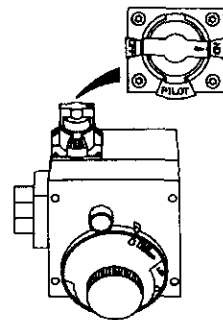


Figure 13

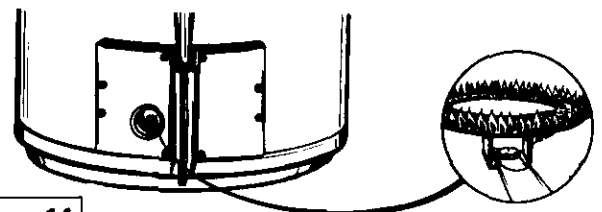


Figure 14

Instructions for Operation (cont'd)

Lighting label on the water heater as it appears above the thermostat


FOR YOUR SAFETY READ BEFORE LIGHTING

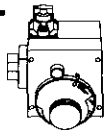
WARNING



If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

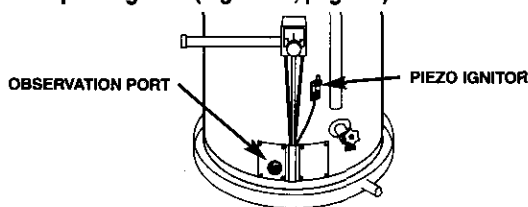
- A. This appliance has a pilot which must be lighted by hand. When lighting the pilot, follow these instructions exactly.
- B. **BEFORE LIGHTING** smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.
WHAT TO DO IF YOU SMELL GAS
 - Do not try to light any appliance.
 - Do not touch any electric switch; do not use any phone in your building.
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
 - If you cannot reach your gas supplier, call the fire department.
- C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

LIGHTING INSTRUCTIONS


1. **STOP!** Read the safety information above on this label.
2. Set the thermostat to lowest setting by turning the water temperature dial clockwise, () to its lowest temperature setting (with arrow on dial) as shown. **DO NOT FORCE.**




3. Turn gas control knob clockwise  to "OFF" position. Knob cannot be turned from "PILOT" to "OFF" unless knob is depressed slightly. **DO NOT FORCE.** (Figure 10, page 35)
4. Wait five (5) minutes to clear out any gas. If you then smell gas, **STOP!** Follow "B" in the safety information above on this label. If you don't smell gas, go to the next step.
5. If you don't smell gas, turn knob on gas control counter clockwise  to "PILOT" position. (Figure 11, page 35)
6. Pilot can be viewed through observation port. Note location of piezo ignitor. (Figure 13, page 35)



7. Depress the gas control knob all the way down. Immediately depress the piezo ignitor button until a click is heard and then release. Check to see if pilot is lit through the observation port. If pilot is not lit, continue to depress and release piezo ignitor button up to six (6) times. If pilot is still not lit, repeat steps 3 through 7. After the pilot is lit, continue to hold control knob down for about one (1) minute. Release knob and it will pop back up. Pilot should remain lit. If it goes out repeat steps 2 through 7.

- If knob does not pop up when released, stop and immediately call your service technician or gas supplier.
- If the pilot will not stay lit after several tries, depress and turn the gas control knob clockwise  to "OFF" and call your service technician or gas supplier. (Figure 10, page 35)

8. At arms length away, turn gas control knob counter-clockwise  to the full "ON" position. **WARNING**



Do not use gas control knob to regulate gas flow. (Figure 12, page 35)

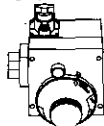
9. At arms length away, set the thermostat to desired setting. The mark (▲) indicative of approximate 120°F is preferred starting point. Some local laws may require a lower starting point. If hotter water is desired, see instruction manual and "warning" below.

WARNING

Hotter water increases the risk of scald injury. Before changing temperature setting see instruction manual.

TO TURN OFF GAS TO APPLIANCE

1. Set the thermostat to lowest setting by turning the water temperature dial clockwise () to its lowest temperature setting (with arrow on dial) as shown. **DO NOT FORCE.**
2. Turn gas control knob clockwise  to "OFF" position. Knob cannot be turned from "PILOT" to "OFF" unless knob is depressed slightly. **DO NOT FORCE.** (Figure 10, page 35)



Instructions for Operation (cont'd)

Temperature Regulation

Due to the nature of the typical gas water heater, the water temperature in certain situations may vary up to 30°F higher or lower at the point of use such as, bathtubs, showers, sink, etc.

This means that when the temperature adjustment dial is set at the mark approximating 120° F, the actual water temperature at any hot water tap could be as high as 150°F or as low as 90°F.

Any water heater's intended purpose is to heat water. Hot water is needed for cleaning (bodies, dishes, clothing). Hot water will present a scald hazard. Depending on the time element, and the people involved (normal adults, children, toddlers, elderly, infirm, etc.) scalding may occur at different temperatures.

▲ WARNING

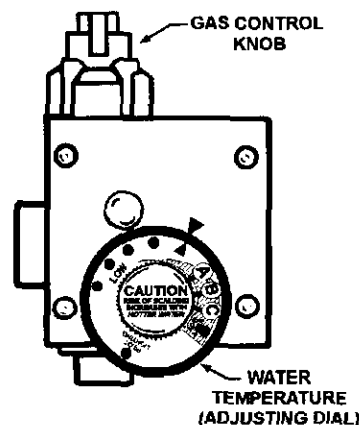
HOTTER WATER CAN SCALD: Water heaters are intended to produce hot water. Water heated to a temperature which will satisfy clothes washing, dish washing, and other sanitizing needs can scald and permanently injure you upon contact. Some people are more likely to be permanently injured by hot water than others. These include the elderly, children, the infirm, or physically/mentally handicapped. If anyone using hot water in your home fits into one of these groups or if there is a local code or state law requiring a certain temperature water at the hot water tap, then you must take special precautions. In addition to using the lowest possible temperature setting that satisfies your hot water needs, a means such as a mixing valve, should be used at the hot water taps used by these people or at the water heater. Mixing valves are available at plumbing supply or hardware stores. Follow manufacturers instructions for installation of the valves. Before changing the factory setting on the thermostat, read the "Temperature Regulation" section in this manual.

▲ WARNING

Never allow small children to use a hot water tap, or to draw their own bath water. Never leave a child or handicapped person unattended in a bathtub or shower.

The thermostat of this water heater has been factory set at its lowest position, to reduce the risk of scald injury. It is adjustable and must be reset to the desired temperature setting. The mark (▲) indicative of approximately 120°F is the preferred starting point. Some states have a requirement for a lower setting. If you need hotter water, follow directions for temperature adjustment, but beware of the warnings in this section.

Turn the water temperature dial clockwise (↻) to decrease the temperature, or counterclockwise (↺) to increase the temperature.



PILOT LIGHTING— Set here before attempting to light pilot.

<u>Temperature Setting</u>		<u>Time to Produce 2nd & 3rd Degree Burns on Adult Skin</u>
VERY HOT = approx. 160°F		About 1/2 second
C = approx. 150°F		About 1-1/2 seconds
B = approx. 140°F		Less than 5 seconds
A = approx. 130°F		About 30 seconds
▲ = approx. 120°F		More than 5 minutes
LOW = approx. 80°F		-----

NOTE: Water temperature range of 120°-140°F (49°-60°C) recommended by most dishwasher manufacturers.

▲ WARNING

Should overheating occur or the gas supply fail to shut off, turn "OFF" the manual gas control valve to the appliance.

Service and Maintenance

Venting System Inspection

At least once a year a visual inspection should be made of the venting system. You should look for:

- Obstructions which could cause improper venting. The combustion and exhaust air flow must not be obstructed.
- Damage or deterioration which could cause improper venting or leakage of combustion products.
- Rusted flakes around top of water heater.

▲ WARNING

Chemical vapor corrosion of the flue and vent system may occur if air for combustion contains certain chemical vapors. Spray can propellants, cleaning solvents, refrigerator and air conditioner refrigerants, swimming pool chemicals, calcium and sodium chloride, waxes, bleach, and process chemicals are typical compounds which are potentially corrosive.

▲ WARNING

Obstructed or deteriorated vent systems may present a serious health risk or asphyxiation.

▲ WARNING

Be sure the vent piping is properly connected to prevent escape of dangerous flue gasses which could cause deadly asphyxiation.

▲ WARNING

If after inspection of the vent system you found sooting or deterioration, something is wrong. Call the local gas utility or Maytag Customer Service at 1-800-788-8899 for an authorized servicer to correct the problem and clean or replace the flue and venting before resuming operation of the water heater. Failure to make corrections can result in a fire, or explosion causing DEATH, SERIOUS BODILY INJURY, OR PROPERTY DAMAGE.

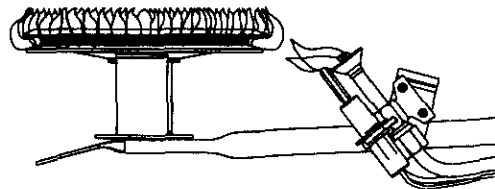
Burner Inspection

▲ WARNING

Flood damage to a water heater may not be readily visible or immediately detectable. However, over a period of time a flooded water heater will create dangerous conditions which can cause DEATH, SERIOUS BODILY INJURY, OR PROPERTY DAMAGE. Contact the Maytag dealer from whom the appliance was purchased or call Maytag Customer Service at 1-800-788-8899 for an authorized servicer to replace a flooded water heater. Do not attempt to repair the unit! It must be replaced!

At least once a year a visual inspection should be made of the main burner and pilot burner. The drawing is for your reference.

You should check for sooting which is not normal and will impair proper combustion.



▲ WARNING

Soot build-up indicates a problem that requires correction before further use. Turn "OFF" gas to water heater and leave "OFF" until repairs are made, because failure to correct the cause of the sooting can result in a fire or explosion causing DEATH, SERIOUS BODILY INJURY, OR PROPERTY DAMAGE.

Burner Cleaning

In the event your burner needs cleaning, use the following instructions:

If inspection of the burner shows that cleaning is required, turn the gas control knob clockwise (↻) to the "OFF" position, depressing slightly.

NOTE: The knob cannot be turned from "PILOT" to "OFF" unless knob is depressed slightly. DO NOT FORCE.

Loose deposits on or around the burner can be removed by carefully using the hose of a vacuum cleaner inserted through the access door of the water heater. If the burner needs to be removed for additional cleaning, call Maytag Customer Service at 1-800-788-8899 for an authorized servicer to remove and clean the burner and correct the problem that required the burner to be cleaned.

Service and Maintenance (cont'd)

L.P. Gas Control Valve & Burner Assembly Replacement Information

▲ WARNING

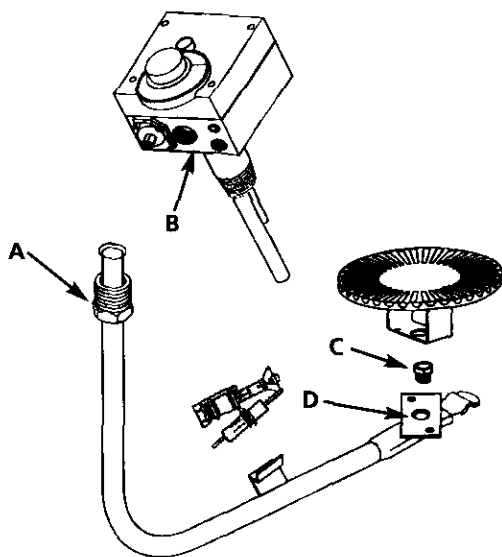
PROPANE (L.P.) GAS CONTROL VALVE AND BURNER ASSEMBLY REPLACEMENT INFORMATION.

For Propane (L.P.) Gas Models Only:

Your water heater is equipped with a Propane (L.P.) gas control valve and a main burner assembly with left hand threads for the following fittings and their connections.

- The connection between the manifold and the gas control valve (A to B) are left hand threads.
- The connection between the main burner orifice and the manifold (C to D) are left hand threads.

For ordering these replacement parts, please refer to the "Repair Parts List" section of this manual.



Draining

The water heater should be drained if being shut down during freezing temperatures. Also periodic draining and cleaning of sediment from the tank may be necessary.

- Turn the gas control knob to the "OFF" position.
- CLOSE the cold water inlet valve to the water heater.
- OPEN a nearby hot water faucet and leave open to allow for draining.
- Connect a hose to the drain valve and terminate to an adequate drain.
- OPEN the water heater drain valve to allow for tank draining.
NOTE: If the water heater is going to be shut down and drained for an extended period, the drain valve should be left open with hose connected allowing water to terminate to an adequate drain.
- Close the drain valve.
- Follow instructions in the "Filling The Water Heater" section.
- Follow the lighting instructions in the "Lighting" section to restart the water heater.

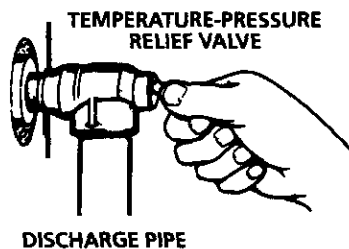
Anode Rod Inspection

The rod must be maintained to keep the tank in operating condition. Anode deterioration depends on water conductivity, not necessarily water condition. It may be necessary to have the anode rod inspected a few times during the first year to see what effect the water has had. A corroded or pitted anode rod, in the first year, indicates high water conductivity and should be checked and or replaced more often than an anode rod that appears to be fairly clean. Inspection should be conducted by a qualified technician.

Service and Maintenance (cont'd)

Temperature-Pressure Relief Valve Operation

The temperature-pressure relief valve must be manually operated at least once a year.



Failure to install and maintain a new properly listed temperature-pressure relief valve will release the manufacturer from any claim which might result from excessive temperature or pressure.

▲ WARNING

If the temperature-pressure relief valve on the appliance weeps or discharges periodically, this may be due to thermal expansion. Your water heater may have a check valve installed in the water line or a water meter with a check valve. Call Maytag Customer Service at 1-800-788-8899 for an authorized servicer for further information. Do not plug the temperature-pressure relief valve.

▲ WARNING

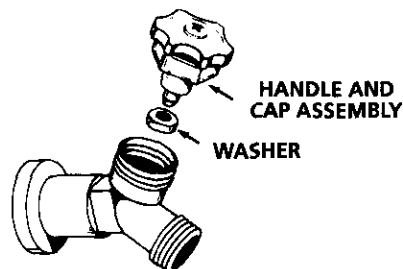
When checking the temperature-pressure relief valve operation, make sure that (1) no one is in front of or around the outlet of the temperature-pressure relief valve discharge line, and (2) that the water manually discharged will not cause any property damage because the water may be extremely hot.

If after manually operating the valve, it fails to completely reset and continues to release water, immediately close the cold water inlet to the water heater, follow the draining instructions, and replace the temperature-pressure relief valve with a new one.

Drain Valve Washer Replacement

NOTE: For replacement, use a $\frac{1}{32}$ " x $\frac{1}{64}$ " x $\frac{1}{8}$ " thick washer available at your nearest hardware store. For ordering replacement washers, refer to the "Repair Parts List" section.

1. Turn "OFF" gas supply to water heater.
2. Follow "Draining" instructions.
3. Turning counter clockwise, remove the hex cap below the screw handle.
4. Remove the washer and put the new one in place.
5. Screw the handle and cap assembly back into the drain valve and retighten using a wrench. **DO NOT OVER TIGHTEN.**
6. Follow instructions in the "Filling The Water Heater" section.
7. Check for leaks.
8. Follow the lighting instructions in the "Instructions for Operation" section to restart the water heater.



Housekeeping

Vacuum around base of water heater for dust, dirt, and lint on a regular basis.

Combustible materials such as clothing, cleaning materials, or flammable liquids, etc. must not be placed against or adjacent to the water heater.

To insure sufficient ventilation and combustion air supply, proper clearances from the water heater must be maintained at all times.

Service

Before calling for repair service, read the Start Up Conditions and Operational Conditions found in the Troubleshooting Guide of this manual.

If a condition persists or you are uncertain about the operation of the water heater, let a qualified person check it out.

Call Maytag Customer Service at 1-800-788-8899 for an authorized servicer.

Troubleshooting

Start Up Conditions

CONDENSATION

Whenever the water heater is filled with cold water, a certain amount of condensation will form while the burner is on. A water heater may appear to be leaking when in fact the water is condensation. This usually happens when:

- When a new water heater is filled with cold water for the first time.
- When gas burns and water vapor is produced in water heaters, particularly high efficiency models where flue temperatures are lower.
- When you use large amounts of hot water in a short time and the refill water is very cold.

Moisture from the products of combustion condense on the cooler tank surfaces and form drops of water which may fall onto the burner or other hot surfaces to produce a "sizzling" or "frying" noise.

Excessive condensation can cause pilot outage due to water running down the flue tube onto the main burner and putting out the pilot.

Because of the suddenness and amount of water, condensation water may be diagnosed as a "tank leak". After the water in the tank warms up (about 1-2 hours), the condition should disappear.

Do not assume the water heater is leaking until there has been enough time for the water in the tank to warm up.

An undersized water heater will cause more condensation. The water heater must be sized properly to meet the family's demands for hot water including dishwashers, washing machines and shower heads.

Excessive condensation may be noticed during the winter and early spring months when incoming water temperatures are at their lowest.

Good venting is essential for a gas fired water heater to operate properly as well as to carry away products of combustion and water vapor.

SMOKE/ODOR

It is not uncommon to experience a small amount of smoke and odor during the initial start-up. This is due to burning off of oil from metal parts, and will disappear in a short while.

THERMAL EXPANSION

Water supply systems may, because of high line pressure, frequent cut-offs, the effects of water hammer and others, have installed devices such as pressure reducing valves, check valves, back flow preventers, etc. to control these types of problems. When these devices are not equipped with an internal by-pass, and no other measures are taken, the devices cause the water system to be closed. As water is heated, it expands (thermal expansion) and closed systems do not allow for the expansion of heated water.

The water within the water heater tank expands as it is heated and increases the pressure of the water system. If the relieving point of the water heater's temperature-pressure relief valve is reached, the valve will relieve the excess pressure. **The temperature-pressure relief valve is not intended for the constant relief of thermal expansion.** This is an unacceptable condition and must be corrected.

It is recommended that any devices installed which could create a closed system have a by-pass and/or the system have an expansion tank to relieve the pressure built by thermal expansion in the water system. Expansion tanks are available for ordering through Maytag Customer Service (1-800-788-8899). Contact the local plumbing inspector, water supplier, and/or call Maytag Customer Service at 1-800-788-8899 for an authorized servicer for assistance in controlling these situations.

STRANGE SOUNDS

Possible noises due to expansion and contraction of some metal parts during periods of heat-up and cool-down do not represent harmful or dangerous conditions.

Condensation causes sizzling and popping with the burner area during heating and cooling periods and should be considered normal. See "Condensation" section.

Troubleshooting (cont'd)

Operational Conditions

SMELLY WATER

In each glasslined water heater there is installed at least one anode rod (see parts section) for corrosion protection of the tank. Certain water conditions will cause a reaction between this rod and the water. The most common complaint associated with the anode rod is one of a "rotten egg smell". This odor is derived from hydrogen sulfide gas dissolved in the water. The smell is the result of four factors which must all be present for the odor to develop:

- a. a concentration of sulfate in the supply water.
- b. little or no dissolved oxygen in the water.
- c. a sulfate reducing bacteria within the water heater.
(This harmless bacteria is non-toxic to humans.)
- d. an excess of active hydrogen in the tank. This is caused by the corrosion protective action of the anode.

Smelly water may be eliminated or reduced in some water heater models by replacing the anode(s) with one of less active material, and then chlorinating the water heater tank and all hot water lines. Call Maytag Customer Service at 1-800-788-8899 for an authorized servicer for further information concerning an Anode Replacement Kit #66001068 and this Chlorination Treatment.

If the smelly water persists after the anode replacement and chlorination treatment, we can only suggest that continuous chlorination and filtering conditioning equipment be considered to eliminate the water problem.

Do not remove the anode leaving the tank unprotected. By doing so, all warranty on the water heater tank is voided.

"AIR" IN HOT WATER FAUCETS

▲ WARNING

HYDROGEN GAS: Hydrogen gas can be produced in a hot water system that has not been used for a long period of time (generally two weeks or more). Hydrogen gas is extremely flammable and explosive. To prevent the possibility of injury under these conditions, we recommend the hot water faucet be opened for several minutes at the kitchen sink before any electrical appliances which are connected to the hot water system are used (such as a dishwasher or washing machine). If hydrogen gas is present, there will probably be an unusual sound similar to air escaping through the pipe as the hot water faucet is opened. There must be no smoking or open flame near the faucet at the time it is open.

HIGH TEMPERATURE SHUT OFF SYSTEM

This water heater is equipped with an automatic gas shut off system. The high temperature shut off is built into the gas control valve. This system shuts off the gas supply to the water heater burners when high water temperatures are present. It is non-resettable. If the high temperature shut off activates, the gas control valve must be replaced. If this were to occur, turn "OFF" the entire gas supply to the water heater. Call Maytag Customer Service at 1-800-788-8899 for an authorized servicer.

▲ WARNING

Should overheating occur or the gas supply fail to shut off, turn "OFF" the manual gas control valve to the appliance.

NOT ENOUGH OR NO HOT WATER

1. Check the manual gas shut off valve to be sure it is open.
2. Check the pilot flame. It may have gone out. All models have an opening in the outer door for viewing the pilot.
3. If the pilot is not lit, follow the "Lighting" instructions in this manual or located above the gas control valve on the water heater to relight the pilot. If the water was extremely hot and is now cold, the high limit safety temperature shut off may have put out the burner and pilot. If the high temperature shut off activates, the gas control valve must be replaced. Call Maytag Customer Service at 1-800-788-8899 for an authorized servicer.
4. The gas control knob must be turned to the "ON" position.
5. The temperature adjustment dial may be set too low. See the "Temperature Regulation" section.
6. The gas company can check the gas input to see if it is correct. An underfired water heater will not heat water as quickly.
7. Look for leaking or open hot water faucets. Make sure all are closed.
8. The cold water inlet temperature may be colder during the winter months. It will take longer to heat the water and seem like less hot water.
9. If you cannot find what is wrong, call Maytag Customer Service (1-800-788-8899 for an authorized servicer.

Troubleshooting (cont'd)

WATER IS TOO HOT

1. The temperature adjustment dial may be set too high. See the "Temperature Adjustment" section.

NOTE: A period of time is necessary after an adjustment has been made for the water temperature to reach the new temperature setting.

2. If lower temperature settings will not lower the water temperature, call Maytag Customer Service (1-800-788-8899) for an authorized servicer.

▲ WARNING

Due to the nature of the typical gas water heater, the water temperature in certain situations may be hotter than the thermostat setting.

Short, frequent draws of hot water - especially with very cold incoming water - can shock the thermostat into brief operation resulting in hotter and hotter layers of water closer to the top of the tank.

Changes in hot water usage patterns or raising the temperature differential between the cut-on of the thermostat and the cold water temperature will usually eliminate the problem.

Troubleshooting (cont'd)

Leakage Checkpoints

Use this guide to check a "Leaking" water heater. Many suspected "Leakers" are not leaking tanks. Often the source of the water can be found and corrected.

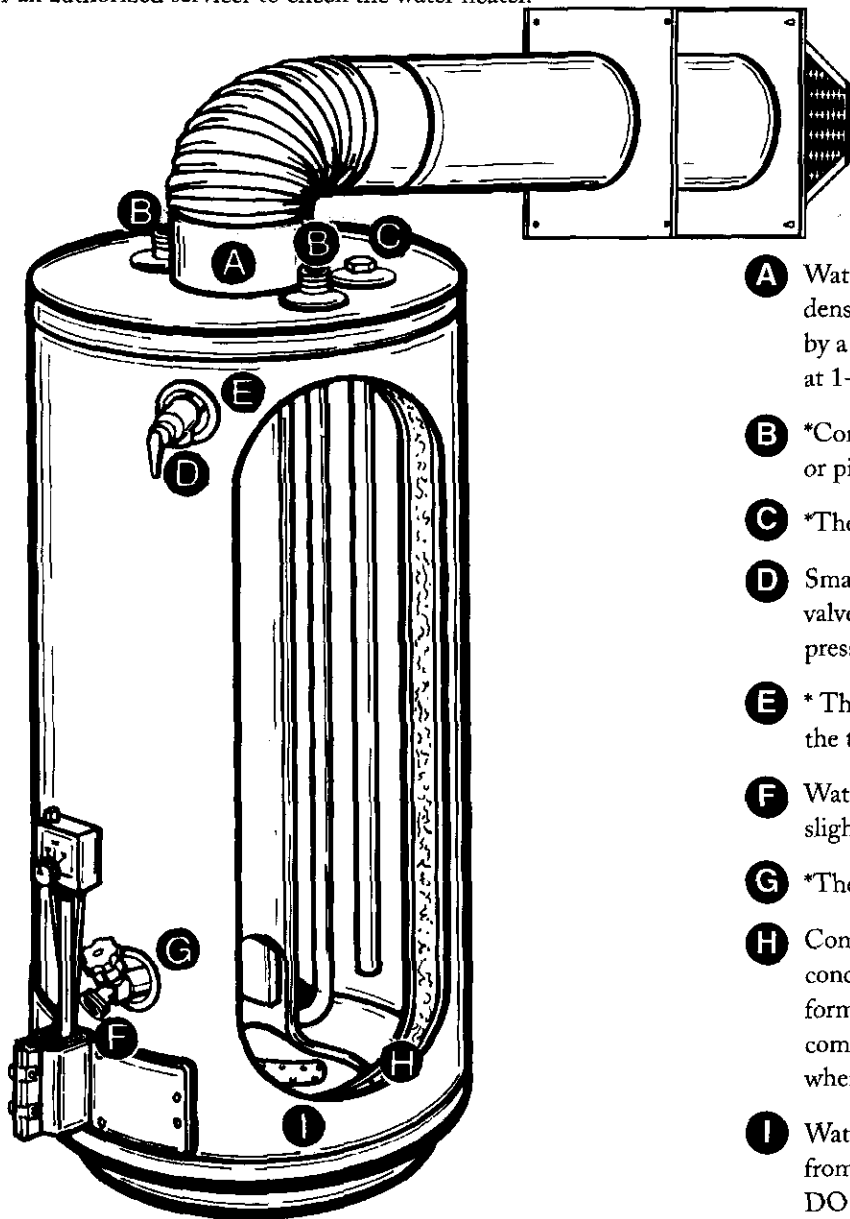
If you are not thoroughly familiar with your local gas codes your water heater, and safety practices, contact your local gas utility or call Maytag Customer Service at 1-800-788-8899 for an authorized servicer to check the water heater.

▲ CAUTION

Read this manual first. Then before checking the water heater make sure the gas supply has been turned "OFF", and never turn the gas "ON" before the tank is completely full of water.

▲ CAUTION

Never use this water heater unless it is completely filled with water. To prevent damage to the tank, the tank must be filled with water. Water must flow from the hot water faucet before turning "ON" gas to the water heater.



- A** Water at the draft hood is water vapor which has condensed out of the combustion products. This is caused by a problem in the vent. Call Maytag Customer Service at 1-800-788-8899 for an authorized servicer.
- B** *Condensation may be seen on pipes in humid weather or pipe connections may be leaking.
- C** *The primary anode rod fitting may be leaking.
- D** Small amounts of water from temperature-pressure relief valve may be due to thermal expansion or high water pressure in your area.
- E** * The temperature-pressure relief valve may be leaking at the tank fitting.
- F** Water from a drain valve may be due to the valve opened slightly.
- G** *The drain valve may be leaking at the tank fitting.
- H** Combustion products contain water vapor which can condense on the cooler surfaces of the tank. Droplets form and drip into the fire or run on the floor. This is common at the time of startup after installation and when incoming water is cold.
- I** Water in the water heater bottom or on the floor may be from condensation, loose connections, or the relief valve. DO NOT replace the water heater until a full inspection of all possible water sources is made and necessary corrective steps taken. Leakage from other appliances, water lines, or ground seepage should also be checked.

***NOTE:** To check where threaded portion enters tank, insert cotton swab between jacket opening and fitting. If cotton is wet, follow "Draining" instructions in the "Service and Maintenance" section and then remove fitting. Put pipe dope or teflon tape on the threads and replace. Then follow "Filling the Water Heater" instructions in the "Instructions for Installation" section.

Notes

Repair Parts List




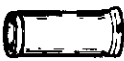


MAYTAG GAS WATER HEATERS MODEL NUMBERS:

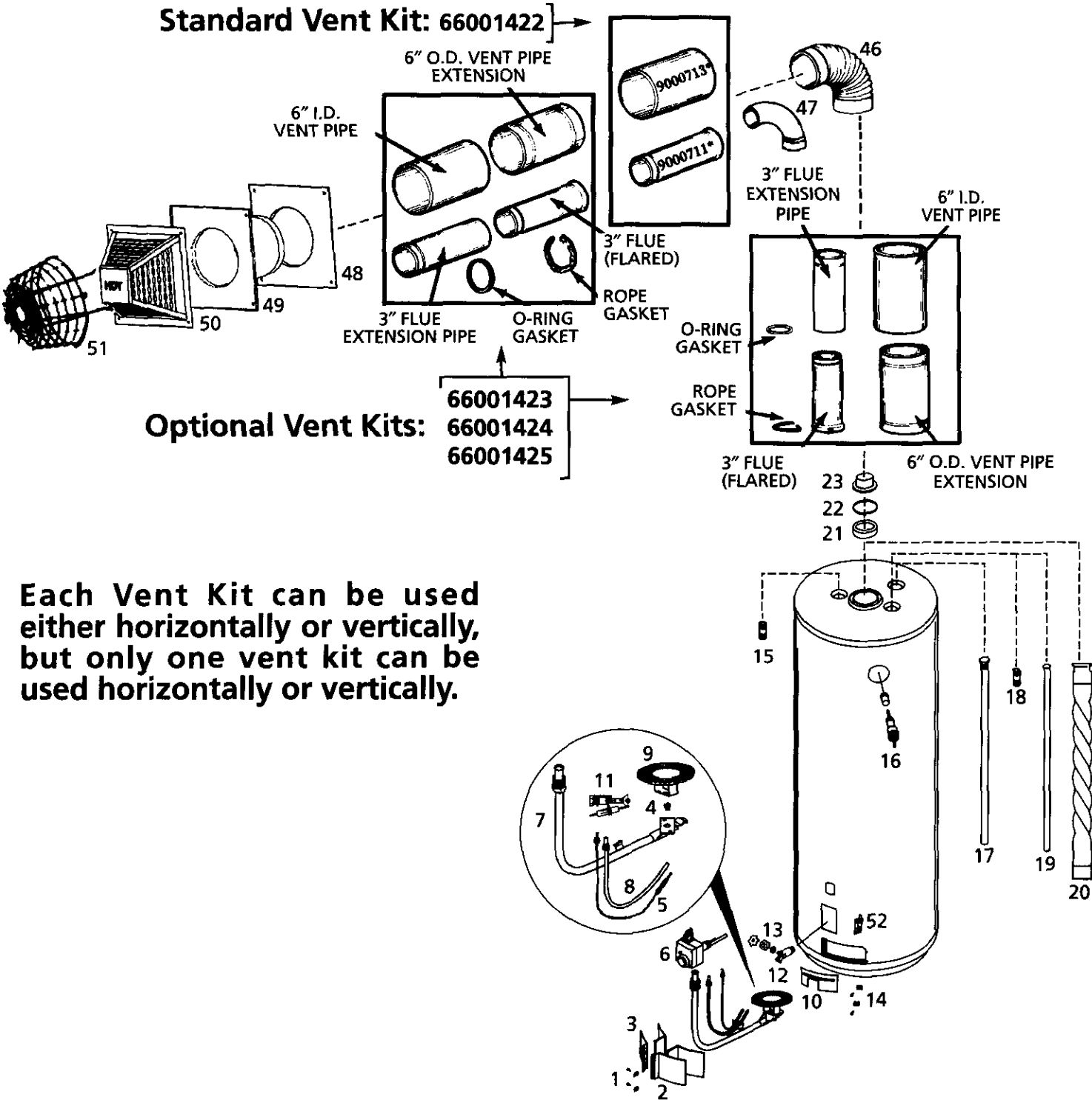
HJ640NBDS
HJ640PBDS

40 Gallon Natural Gas
40 Gallon Propane (L.P.) Gas

HJ650NBDS
HJ650PBDS

50 Gallon Natural Gas
50 Gallon Propane (L.P.) Gas

6" I.D. VENT PIPE	6" O.D. VENT EXTENSION PIPE	O-RING GASKET	3" FLUE PIPE	3" FLUE EXTENSION PIPE	ROPE GASKET
					
27 29 37 43	30 35 41	24 33 39 45	31 36 42	25 28 34 40	26 32 38 44



Repair Parts List (cont'd)

MAYTAG GAS WATER HEATERS MODEL NUMBERS:

HJ640NBDS
HJ640PBDS

40 Gallon Natural Gas
40 Gallon Propane (L.P.) Gas

HJ650NBDS
HJ650PBDS

50 Gallon Natural Gas
50 Gallon Propane (L.P.) Gas

KEY NO.	PART DESCRIPTION	Model Number			
		HJ640NBDS	HJ640PBDS	HJ650NBDS	HJ650PBDS
		PART NUMBERS			
1.	Access Door Clips (Pkg. 2)	66001204	66001204	66001204	66001204
2.	Right Access Door w/ Gasket	66001205	66001205	66001205	66001205
3.	Left Access Door w/Gasket	66001206	66001206	66001206	66001206
4.	Burner Orifice (Nat.) (Drill Size)	66001025 #33	—	66001159 1/8	—
4.	Burner Orifice (Nat.) Hi-Altitude (Drill Size)	66001035 #36	—	66001025 #33	—
4.	Burner Orifice [Propane (L.P.)] (Drill Size)	—	66001172 #50	—	66001040 #49
4.	Burner Orifice [Propane (L.P.)] Hi-Altitude (Drill Size)	—	66001041 #51	—	66001172 #50
5.	Thermocouple	66001391	66001391	66001391	66001391
6.	Gas Control Valve (Nat.)	66001183	—	66001183	—
6.	Gas Control Valve [Propane (L.P.)]	—	66001004	—	66001004
7.	Gas Manifold (Nat.)	66001037	—	66001037	—
7.	Gas Manifold [Propane (L.P.)]	—	66001044	—	66001044
8.	Pilot Tube w/Fittings	66001188	66001188	66001188	66001188
9.	Burner (Nat.)	66001027	—	66001027	—
9.	Burner (Nat.)	—	66001027	—	66001185
10.	Inner Door	66001029	66001029	66001029	66001029
11.	Pilot (Nat.) w/electrode	66001472	—	66001472	—
11.	Pilot [Propane (L.P.)] w/electrode	—	66001473	—	66001473
12.	Drain Valve	66001181	66001181	66001181	66001181
13.	Drain Valve Washer* (1 1/32" x 1 3/64" x 1/8" thick)*	66001021	66001021	66001021	66001021
14.	Jacket Clips (Pkg. 8)	66001242	66001242	66001242	66001242
15.	Nipple	66001311	66001311	66001311	66001311
16.	Temperature-Pressure Relief Valve	66001216	66001216	66001216	66001216
17.	Anode Rod	66001157	66001157	66001157	66001157
18.	Nipple	66001311	66001311	66001311	66001311
19.	Dip Tube	66001279	66001279	66001278	66001278
20.	Flue Baffle (Nat.)	66001347	—	66001235	—
20.	Flue Baffle [Propane (L.P.)]	—	66001234	—	66001235
21.	Flue Adaptor	66001236	66001236	66001237	66001237
22.	Adaptor Gasket	66001238	66001238	66001239	66001239
23.	Adaptor Plate w/Gasket	66001240	66001240	66001241	66001241

* Also available at most hardware stores.

Now that you have purchased this Gas Water Heater, should a need ever exist for repair parts or service, simply call Maytag Customer Service at 1-800-788-8899 for an authorized servicer. Be sure to provide pertinent facts when you call.

THIS IS A REPAIR PARTS LIST, NOT A PACKING LIST.

The model number of this Gas Water Heater will be found on the model rating plate located near the gas control valve.

When ordering repair parts, always give the following information:

Model Number
Serial Number
Part Description
Part Number

Repair Parts List (cont'd)

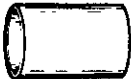


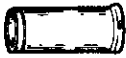


MAYTAG GAS WATER HEATERS MODEL NUMBERS:

HJ640NBDS
HJ640PBDS

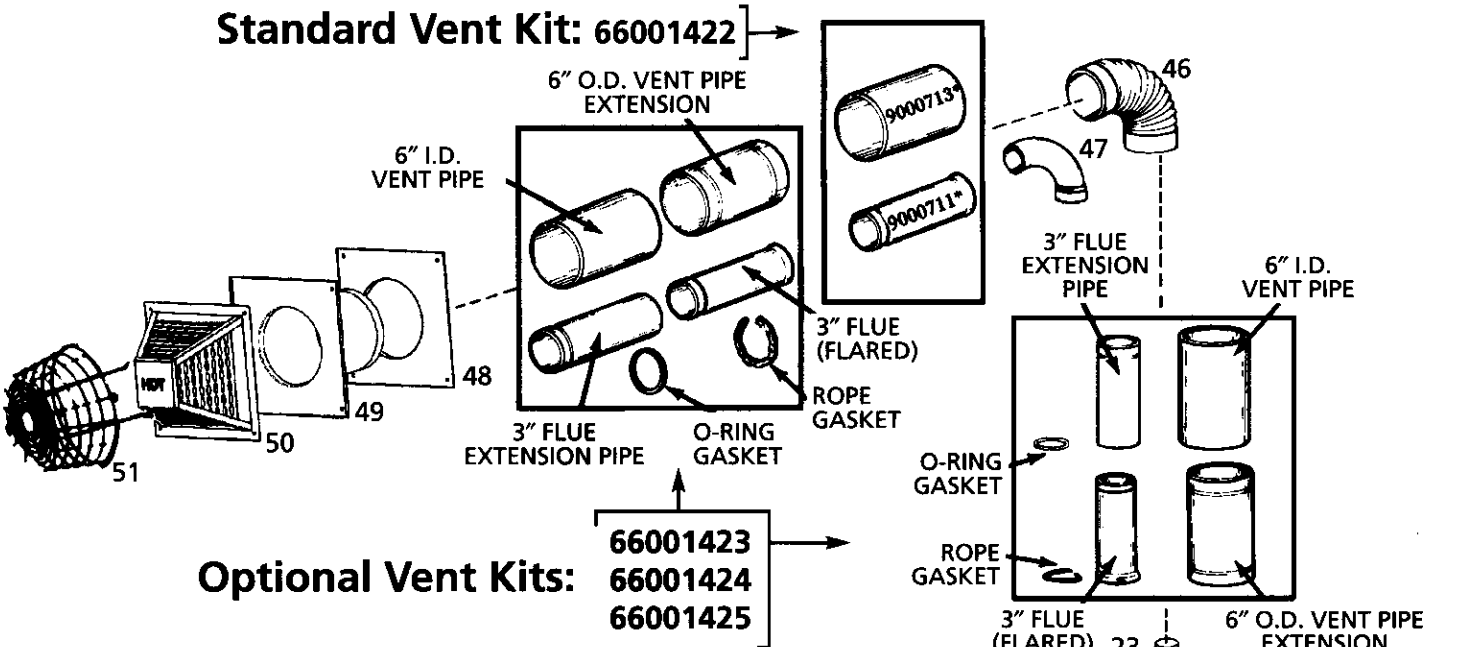
40 Gallon Natural Gas
40 Gallon Propane (L.P.) Gas

HJ650NBDS
HJ650PBDS

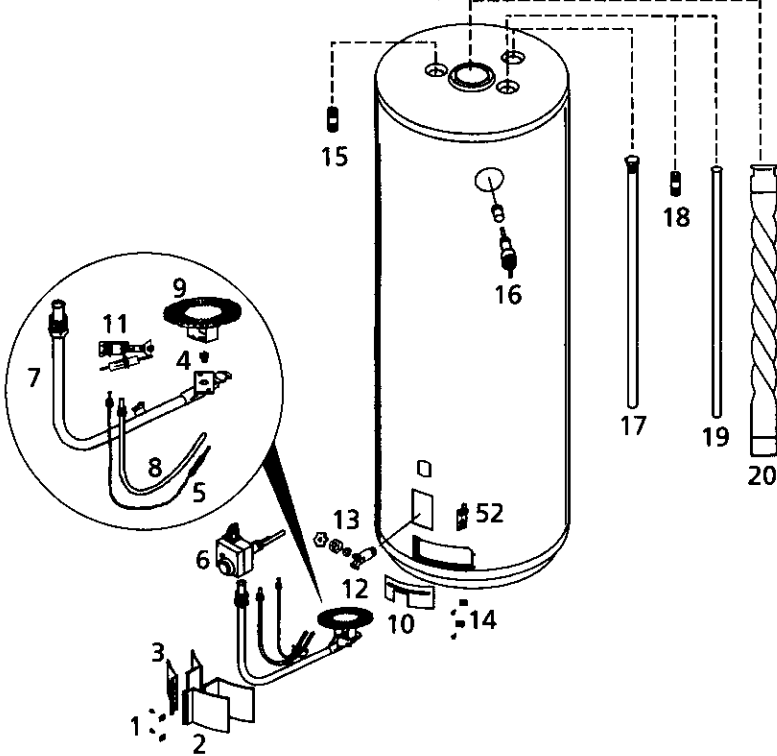
50 Gallon Natural Gas
50 Gallon Propane (L.P.) Gas

6" I.D. VENT PIPE	6" O.D. VENT EXTENSION PIPE	O-RING GASKET	3" FLUE PIPE	3" FLUE EXTENSION PIPE	ROPE GASKET
					
27 29 37 43	30 35 41	24 33 39 45	31 36 42	25 28 34 40	26 32 38 44

Standard Vent Kit: 66001422



Each Vent Kit can be used either horizontally or vertically, but only one vent kit can be used horizontally or vertically.



Repair Parts List (cont'd)

MAYTAG GAS WATER HEATERS MODEL NUMBERS:

HJ640NBDS
HJ640PBDS

40 Gallon Natural Gas
40 Gallon Propane (L.P.) Gas

HJ650NBDS
HJ650PBDS

50 Gallon Natural Gas
50 Gallon Propane (L.P.) Gas

KEY NO.	PART DESCRIPTION	Model Number			
		HJ640NBDS	HJ640PBDS	HJ650NBDS	HJ650PBDS
		PART NUMBERS			
	Standard Kit No. 66001422				
24.	O-Ring Gasket	66001207	66001207	66001207	66001207
25.	3" I.D. x 9 1/2" Flue Extension Pipe w/Gaskets	66001208	66001208	66001208	66001208
26.	Rope Gaskets	66001209	66001209	66001209	66001209
27.	6" I.D. x 5 1/2" Vent Extension Pipe	66001210	66001210	66001210	66001210
	Kit AVK-1 No. 66001423				
28.	3" I.D. x 7 7/8" Flue Extension Pipe w/Gaskets	66001228	66001228	66001228	66001228
29.	6" I.D. x 8 7/8" Vent Pipe	66001225	66001225	66001225	66001225
30.	6" O.D. x 8 7/8" Vent Extension Pipe	66001222	66001222	66001222	66001222
31.	3" O.D. x 8 7/8" Flue Pipe	66001231	66001231	66001231	66001231
32.	Rope Gasket	66001209	66001209	66001209	66001209
33.	O-Ring Gasket	66001207	66001207	66001207	66001207
	Kit AVK-2 No. 66001424				
34.	3" I.D. x 13 3/8" Flue Extension Pipe w/Gaskets	66001229	66001229	66001229	66001229
35.	6" O.D. x 13 3/8" Vent Extension Pipe	66001223	66001223	66001223	66001223
36.	3" O.D. x 13 3/8" Flue Pipe	66001232	66001232	66001232	66001232
37.	6" I.D. x 13 3/8" Vent Pipe	66001226	66001226	66001226	66001226
38.	Rope Gasket	66001209	66001209	66001209	66001209
39.	O-Ring Gasket	66001207	66001207	66001207	66001207
	Kit AVK-3 No. 66001425				
40.	3" I.D. x 24 3/8" Flue Extension Pipe w/Gaskets	66001230	66001230	66001230	66001230
41.	6" O.D. x 24 3/8" Vent Extension Pipe	66001224	66001224	66001224	66001224
42.	3" O.D. x 24 3/8" Flue Pipe	66001233	66001233	66001233	66001233
43.	6" I.D. x 24 3/8" Vent Pipe	66001227	66001227	66001227	66001227
44.	Rope Gasket	66001209	66001209	66001209	66001209
45.	O-Ring Gasket	66001207	66001207	66001207	66001207
46.	6" Vent Elbow	66001212	66001212	66001212	66001212
47.	3" Flue Elbow	66001211	66001211	66001211	66001211
48.	Inside Wall Collar	66001446	66001446	66001446	66001446
49.	6" Vent Wall Assembly	66001444	66001444	66001444	66001444
50.	Vent Cap Assembly	66001445	66001445	66001445	66001445
51.	Wire Grill Protector	66001426	66001426	66001426	66001426
52.	Piezo Ignitor w/Bracket	66001474	66001474	66001474	66001474
#	Manual	66001470			

Now that you have purchased this Gas Water Heater, should a need ever exist for repair parts or service, simply call Maytag Customer Service at 1-800-788-8899 for an authorized servicer. Be sure to provide pertinent facts when you call.

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The model number of this Gas Water Heater will be found on the model rating plate located near the gas control valve.

When ordering repair parts, always give the following information:

Model Number
Serial Number
Part Description
Part Number

Repair Parts List (cont'd)

MAYTAG GAS WATER HEATERS

MAYTAG/STATE PART NUMBER CONVERSION KEY	
MAYTAG	STATE
66001004	9002123
66001011	9001609
66001012	9001608
66001013	ETC2X
66001014	ETC5X
66001021	9001584
66001025	0230120
66001027	9002411
66001029	9000281
66001035	0230141
66001037	9002413
66001040	0230223
66001041	0230224
66001044	9002415
66001068	9001453
66001105	9002769
66001157	9000029
66001159	0230125
66001172	0230225
66001181	9000058
66001183	9000249
66001185	9000349
66001188	9000278
66001192	9000285
66001194	9000287
66001204	9000694
66001205	9000695
66001206	9000696
66001207	9000710
66001208	9000711
66001209	9000712
66001210	9000713
66001211	9000718
66001212	9000719
66001216	9000728
66001222	9001274
66001223	9001275

MAYTAG/STATE PART NUMBER CONVERSION KEY	
MAYTAG	STATE
66001224	9001276
66001225	9001277
66001226	9001278
66001227	9001279
66001228	9001280
66001229	9001281
66001230	9001282
66001231	9001283
66001232	9001284
66001233	9001285
66001234	9001287
66001235	9001288
66001236	9001289
66001237	9001290
66001238	9001291
66001239	9001292
66001240	9001293
66001241	9001294
66001242	9001305
66001278	9002361
66001279	9002365
66001311	9002563
66001347	9002837
66001391	9000876
66001422	9000687
66001423	9001246
66001424	9001247
66001425	9001248
66001426	9000915
66001444	9003166
66001445	9003165
66001446	9003168
66001470	183779-000
66001472	9003320
60001473	9003319
66001474	9001940

Notes

Warranty

FULL ONE YEAR WARRANTY

For One Year from the date of Original Retail Purchase, any part which fails in normal home use will be repaired or replaced free of charge.

If a leak occurs in the Tank, a new water heater of the closest capacity and quality then available, will be replaced free of charge.

The warranty of the replacement is the balance of the original water heater's Warranty.

LIMITED PARTS WARRANTY

After the First year and through the Sixth Year from the date of Original Retail Purchase, any Parts which fail due to a defect in materials or workmanship, will be replaced or repaired free of charge for the part itself, with the owner paying all other costs, including labor, mileage and transportation.

If the water heater is subjected to commercial, institutional, industrial or non-residential use, the above warranty coverage for parts that are proved to be defective in material or workmanship is effective for one year from the date of the Original Retail Purchase.

The warranty of the replacement is the balance of the original water heater's Warranty, or twelve months from the date of the part(s) purchase, whichever comes first.

This warranty is limited to the original owner of the water heater.

LIMITED TANK WARRANTY AGAINST LEAKS

After the First Year and through the Sixth Year from the date of Original Retail Purchase, if a leak occurs in the Tank, a new water heater of the closest capacity and quality then available, will be replaced free of charge for the water heater, with the owner paying all other costs, including labor, mileage and transportation.

If the water heater is subjected to commercial, institutional, industrial or non-residential use, the above warranty coverage for tanks that are proved to be defective in material or workmanship is effective for two years from the date of the Original Retail Purchase.

The warranty of the replacement is the balance of the original water heater's Warranty.

Please note: The Full and Limited Warranty applies only while this water heater is used in the United States of America.

This warranty is limited to the original owner of the water heater.

TO RECEIVE WARRANTY SERVICE

To locate an authorized service company in your area contact the Maytag dealer from whom your appliance was purchased; or call Maytag Customer Service at the number listed below. Should you not receive satisfactory warranty service, please call or write:

Maytag Customer Service
P.O. Box 2370
Cleveland, TN 37320-2370
U.S.A. 1-800-788-8899

When contacting Maytag Customer Service be sure to provide the Model and Serial Number of your appliance, The Name and Address of the Dealer from whom you purchased the appliance and the Date of Purchase.

MAYTAG WATER HEATERS ARE MANUFACTURED AND THIS WARRANTY PROVIDED BY STATE INDUSTRIES, INC., ASHLAND CITY, TN. MAYTAG IS A TRADEMARK OF MAYTAG CORPORATION AND IS USED UNDER LICENSE TO STATE INDUSTRIES, INC.